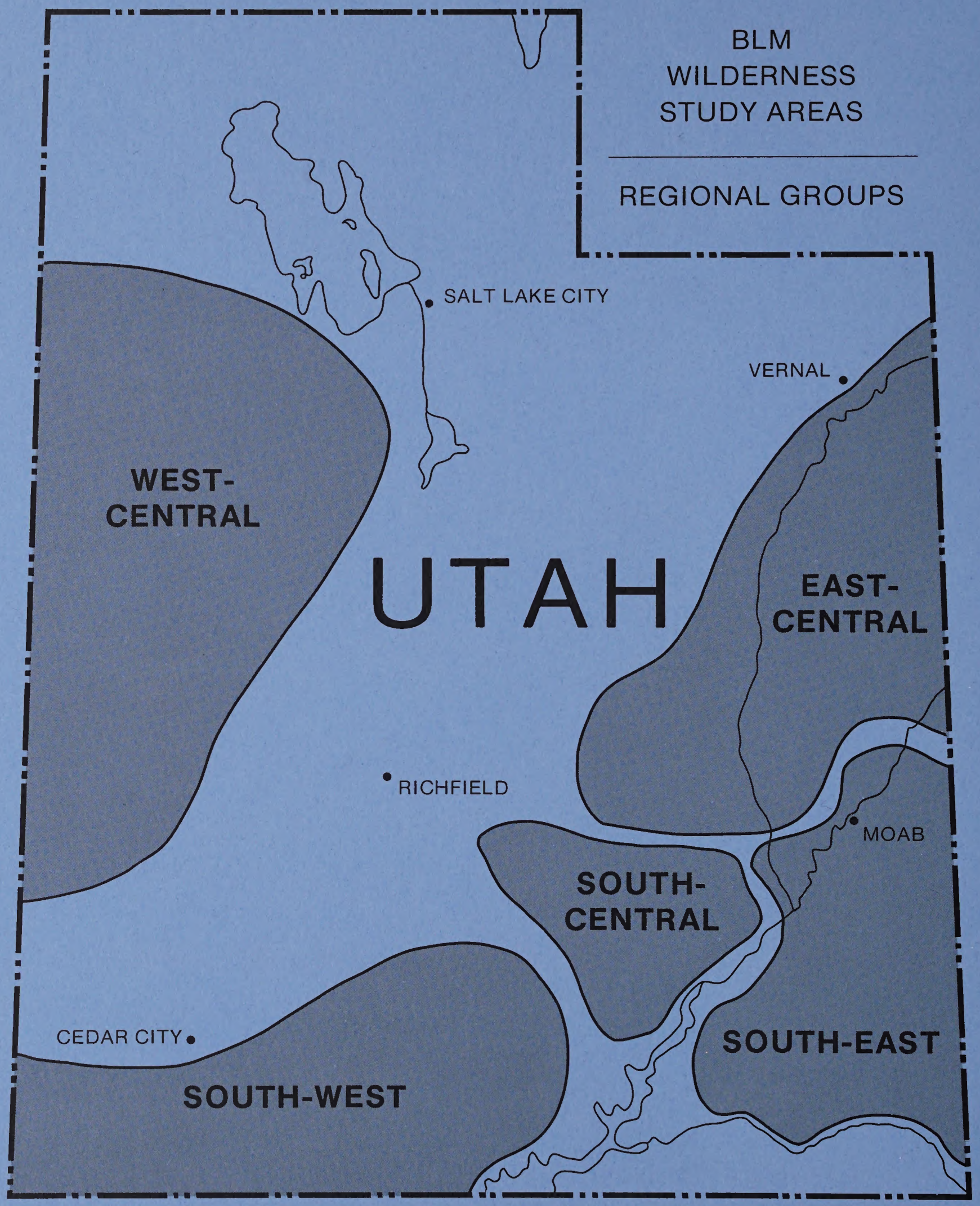
United States Department of the Interior
Bureau of Land Management

Utah State Office October 1991

UTAH STATEWIDE WILDERNESS STUDY REPORT

Volume III - Summary Analysis of Study Area Recommendations

Wilderness Study Reports For Study Areas Not Studied in Utah BLM Statewide Wilderness EIS


BLM
WILDERNESS
STUDY AREAS
REGIONAL GROUPS
SALT LAKE CITY
VERNAL
WEST-
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UTAH
EAST-
CENTRAL
RICHFIELD
MOAB
SOUTH-
CENTRAL
CEDAR CITY
SOUTH-EAST
SOUTH-WEST

Volume III Wilderness Study Reports For Study Areas Not Studied In The Utah BLM Statewide Wilderness EIS

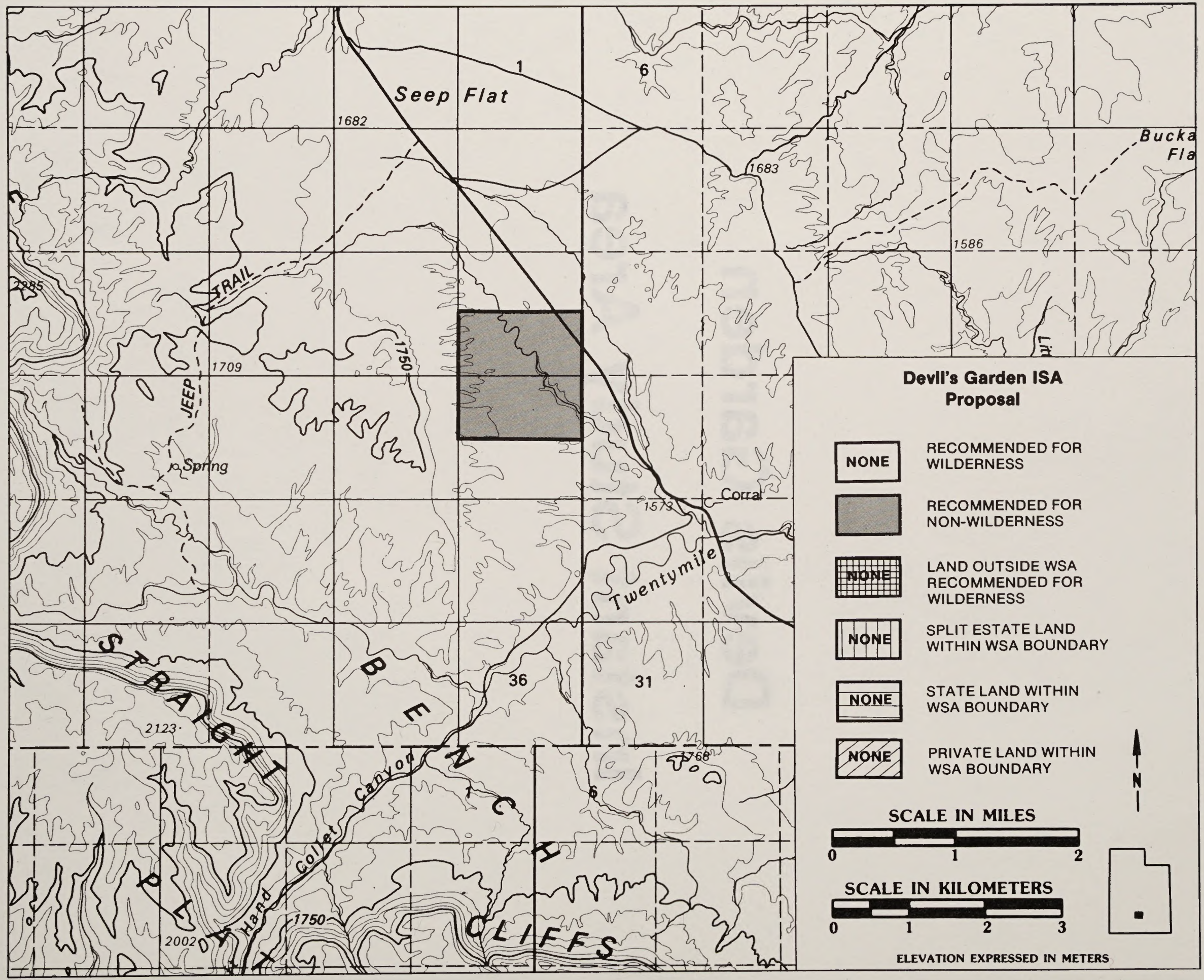
Devils Garden

Instant Study Area

R. 4 E.

R. 5 E.

T. 37 S.



DEVIL'S GARDEN ISA

October 1991

DEVIL'S GARDEN OUTSTANDING NATURAL AREA

STATISTICAL SUMMARY
DEVIL'S GARDEN OUTSTANDING NATURAL AREA
GARFIELD COUNTY, UTAH - CEDAR CITY DISTRICT

	Previously Designated Area	Contiguous Lands (if Any)	Total
Acres With Wilderness Characteristics	0	None	0
Acres Without Wilderness Characteristics Recommended Against Designation	640	None	0
Total	640	None	0

Ownership in Study Area (April 14, 1980)

BLM	640 Acres
Forest Service	0 Acres
Private	0 Acres

RECOMMENDATION

DEVIL'S GARDEN OUTSTANDING NATURAL AREA

The Devil's Garden Outstanding Natural Area has been found to lack those wilderness characteristics described in the Wilderness Act of September 3, 1964. The Outstanding Natural Area lacks the naturalness characteristic. BLM recommends to the Secretary of the Interior that Congress find the Outstanding Natural Area nonsuitable for preservation as wilderness.

District Manager W.S. Jensen District Cedar City

Date 4-13-81

State Director Dean Stepanek State Utah

ACTING

Date MAY 1 1981

Director /s/ Robert F. Burford

Date July 22, 1983

DEVIL'S GARDEN OUTSTANDING NATURAL AREA

RECOMMENDATION
SUMMARY STATEMENT OF REASONS FOR THE RECOMMENDATION

Results of Wilderness Characteristics Review: The Utah State Director has determined that the Devil's Garden ISA does not possess wilderness characteristics because it lacks the naturalness characteristic. An analysis of each wilderness characteristic follows.

Naturalness: Evidences of man within the ISA are two roads, a way, and a developed picnic area. The county-maintained Hole-in-the-Rock road passes through the northeast corner of the ISA. The access road to the Devil's Garden is maintained by the BLM. This road leads to a developed picnic area which contains a parking area, two toilets, and three picnic units. The old alignment of the access road has been scarified and seeded, but is still substantially noticeable. These intrusions are highly visible from most of the ISA due to the lack of topographic and vegetative screening. The locations of the intrusions and their cumulative impact over the inventory area resulted in a determination that none of the inventory area possessed the naturalness characteristic.

Outstanding Opportunity for Solitude: None of the ISA was identified as offering outstanding opportunities for solitude. The topography and low-growing vegetation preclude opportunities for solitude. The ISA's proximity to the Hole-in-the-Rock road and the penetrating road to the picnic area decrease the opportunity to avoid the sights, sounds, and evidence of other people. Furthermore, almost all of the visitor use occurs in the Devil's Garden and the chances for visitor contacts are increased.

Outstanding Opportunity for Primitive and Unconfined Recreation: The Devil's Garden offers outstanding opportunities for hiking, geological sightseeing, and photography. However, this opportunity is present only in a 10-acre area (1.6 percent of the ISA) which contains the unique geological features and is adjacent to the developed picnic area. The remainder of the ISA was determined not to offer outstanding primitive, unconfined recreation opportunities.

An analysis of the public comments on the Utah State Director's proposal that the Devil's Garden ONA lacked wilderness characteristics indicates that none of the comments would justify changing the proposed determination of wilderness character. The Utah State Director's final decision that the ONA lacked wilderness character was announced in the May 5, 1980 Federal Register.

Economic and Social Impacts: A suitability or nonsuitability recommendation is required of the Secretary by the Federal Land Policy and Management Act of 1976 (FLPMA). Because the recommendation does not constitute a change in the status or administration of the area, it generates no economic or social impacts. The ONA has been managed under the interim management stipulations of section 603(c) of the FLPMA and interim management will continue until Congress determines otherwise.

Analysis of Long-Term and Short-Term Effects of the Recommendation: The recommendation is that the Devil's Garden ONA is nonsuitable for designation as wilderness. No lists of uses compatible and incompatible with the purposes of designation have been prepared. No long-term and short-term effects are associated with this recommendation.

Options Foregone if Recommendation is Adopted: If Congress does not add the Devil's Garden ONA to the NWPS, the option of Wilderness Area status and any possible enabling legislative direction for the area would be lost.

BACKGROUND INFORMATION

Statement on Previous Designation: The Devil's Garden ONA was designated on December 23, 1970 by the Utah State Director by virtue of authority vested in the Secretary of the Interior under the Classification and Multi-ple Use Act of September 19, 1964 and R.S. 2473 (43 U.S.C. 1201), and pursuant to the provisions of 43 CFR Part 2070.

Significant Resource Data: The significant resource in the Devil's Garden ONA is "the unique scenic values and natural wonders" of a small area of erosional sculptures carved from Entrada sandstone. The major examples of these unique scenic values are found within the Devil's Garden. The Devil's Garden embraces about 5 to 10 acres of the ONA. The remainder of the 640 acre designated area exhibits a snakeweed-grass vegetation type with scattered junipers on a sandy soil. This portion of the ONA is devoid of the scenic geological formations that characterize the Devil's Garden. It functions as a protective management buffer for the interpretation, maintenance, and preservation of the natural condition of the Devil's Garden. The location and the 640 acres size of the designation represent an easily recognizable and convenient legal description.

Summary of Public Participation:

Description of Process: An intensive inventory of the Devil's Garden ONA was completed by the Cedar City District Office wilderness staff on December 10, 1979. No public requests for field participation in the inventory were received.

The Utah State Director's proposed decision on wilderness characteristics was announced in the January 16, 1980 Federal Register (pp. 3114-3115) and a 30-day public comment period initiated from January 16, 1980 to February 15, 1980. The Utah State Office distributed a summary narrative, map, and news release to the public on January 17, 1980.

An analysis of these comments by the Cedar City District indicated that none of the comments justified a change in the proposed decision. On April 4, 1980 the Cedar City District Manager recommended to the Utah State Director that the final decision on the Devil's Garden ISA be that the ISA lacks wilderness characteristics. The Utah State Director announced his Final Deciison that the ISA lacked wilderness character in the May 5, 1980 Federal Register.

On June 3, 1980, Sierra Club, Utah Chapter, protested the May 5, 1980 Utah State Director decision. The Utah State Director denied the protest on November 21, 1980. On December 22, 1980, the Sierra Club filed a Notice of Appeal to the "decision denying Wilderness Study Area status for the Devil's Garden Instant Study Area". The Interior Board of Land Appeals dismissed the appeal on March 6, 1981 because appellant failed to file a statement of reasons.

Summary of Analysis of Comments: Ten of the 13 comments agreed with the State Director's proposed decision. Four of these comments were identical in content and signed by different individuals. This comment stated that:

> The main roadway to the Hole-in-the-Rock goes right through this acreage and has a road over to and into a picnic area within the boundary of this study area which takes away the naturalness which is a requirement necessary for wilderness areas. The old road has been replaced with a new one, but the old scars and intrusions are highly visible and have made a significant impact on the whole area.
>
> Because of the roadways and the relatively flat area around this small picnic area there is very little if any opportunity for solitude and since everyone inter-ested in the area uses the picnic ground, the way it is located makes it impossible to be alone.
>
> With the exception of the picnic area and the small area adjacent to it which contains not more than an acre or two, there is no opportunity for recreation since these intrusions intrude on the only area which could meet the criteria of primitive and unconfined recreation opportunities.

This comment corresponded very closely with the State Director's proposal.

Two other comments stated that:

> The main road to Hole-in-the-Rock and areas on the Escalante Desert passes through the unit along with a newly developed road and picnic area at Devil's Rock Garden. Included in this same area is the old road that provided access to Devil's Garden. The area is virtually flat and sight distance is almost unlimited in most areas in the unit.

and that:

> The main road to the Hole-in-the-Rock area passes very near the Devil's Garden. This would preclude the solitude nature, also in this area is a man-made picnic area. An access road to the Devil's Garden is maintained by the BLM. This leads to a picnic area containing parking area, picnic units, and restroom facilities.
>
> These intrusions are highly visible. I feel that none of this area posses the natural characteristics of a wilderness area.

Although four other comments agreed with the BLM proposal, they did not provide information concerning the presence or lack of wilderness characteristics.

Three comments were received which disa-greed with the BLM proposal. One comment stated that:

> The criteria by which the Bureau of Land Management determines wilderness status is often times excessively strict, particularly

where the 5,000 acre requirement is concerned. Eco-systems do not need 5,000 acres to be sustained.

This comment was not considered because by policy ecosystem representation is not a wilderness characteristic and by law there is no 5,000 acre requirement for Instant Study Areas.

Another comment stated that:

> Although this is a small area, the arches and formations form an unusual experience in solitude and unconfined recreation. The BLM report mentions the old alignment of the access road has been scarified and seeded, but is still substantially noticeable. Yet the BLM is permitting off-road vehicles (ORVs) to scarify large sections of roadless area and perhaps this is to exclude them from wilderness study. Such nonimpairment of lands is covered in the Interim Management Policy and Guidelines for Lands under Wilderness Review. Action against ORVs has not been taken in Utah to this date. A scarified and seeded old road just shows that one cannot rehabilitate either ORV activity or old mining activity. This means that areas such as Devil's Garden and much of Utah should either be made into a Wilderness Study Area or withdrawn from mineral leasing and ORV use.

The comment disagrees with the BLM proposal that the ISA lacks outstanding opportunity for solitude, but it does not provide information to support the claim. The BLM proposal acknowledges that an outstanding opportunity for primitive, unconfined recreation exists within the ISA. The comment does not discuss the naturalness of the area, but does support the State Director's proposal that the scarified and seeded way is substantially noticeable.

One letter made an extensive comment about the ISA proposal. Concerning outstanding opportunities for primi-tive, unconfined recreation, this com-ment stated that:

> The small wash that dissects the Natural Area offers visitors the opportunity to wander aimlessly enjoying rock formations and geological wonderments. Once inside the wash, the presence of the Hole-in-the-Rock road is not known. Birdwatching, photography, nature study and especially study of the geological features of the area are common for those who visit the Garden. The numerous small arches, grottos, and rock formations provide bouldering and climbing material. The geological features are conducive to those who like to run and play on the contours of the earth's surface.

Concerning outstanding opportunities for solitude, this comment stated that:

> Devil's Garden is known by few individuals and besides an occasional visitor to the parking lot and immediate vicinity one will usually have the entire Natural Area to oneself. As one heads south through the draw the visitation decreases even more. The broken terrain provides screening and blocks the Hole-in-the-Rock road from view. On top of the draw the Hole-in-the-Rock road is not readily visible nor obtrusive. The immensity of the entire undeveloped region enhances the solitariness features of the Natural Area. In my numerous visits to the area, I have found other visitors to be present only one time; these visitors were driving ORVs and causing damage to the area. This situation has been corrected with the new access road which enters the area. Like the Hole-in-the-Rock road, the new access road is not visible except from a small portion of the Natural Area. The opportunities for solitude in Devil's Garden and surrounding terrain are outstanding.

The comment also protested that Unit UT-040-076 was not inventoried with the ISA.

The State Director's proposal acknowledged that an outstanding opportunity for primitive, unconfined recreation exists within the ISA. The proposal also stated that the topography, low-growing vegetation, and the locations of intrusions within the ISA preclude outstanding opportunities for solitude.

A copy of each of these comments is in the Cedar City District's Permanent Documentation File.

Cultural Resource Clearance: On April 1, 1981, Dr. Melvin T. Smith, Utah State Historic Preservation Officer, was contacted by letter and informed of the nonsuitable for preservation recommendation for the Devil's Garden ONA.

INSTANT STUDY AREA
WILDERNESS CHARACTERISTICS INVENTORY
DISTRICT PRELIMINARY FINDING

I. LOCATION

ISA name: Devil's Garden Outstanding Natural Area

District: Cedar City State: Utah

II. SUMMARY:

A. Results of wilderness characteristics analysis.

1. Does the ISA appear to be natural?	____ yes	X no
2. Does the ISA offer outstanding opportunities for solitude or a primitive and unconfined type recreation?	X yes	____ no
3. Does the ISA have supplemental values?	X yes	____ no

B. Resulting map.
Attach a map showing designated area (and contiguous roadless area if appropriate).

III. PRELIMINARY FINDING

Check one:

____ Entire designated area and contiguous roadless area (where applicable) has wilderness characteristics.

X Entire designated area and contiguous roadless area (where applicable) lacks wilderness characteristics.

____ A portion of the designated area and contiguous roadless area (where applicable) has wilderness characteristics. The restrictions imposed by Section 603 will no longer apply on the remainder of the contiguous roadless area.

IV. APPROVAL

District Manager: W. S. Jensen

Date: 12/26/79

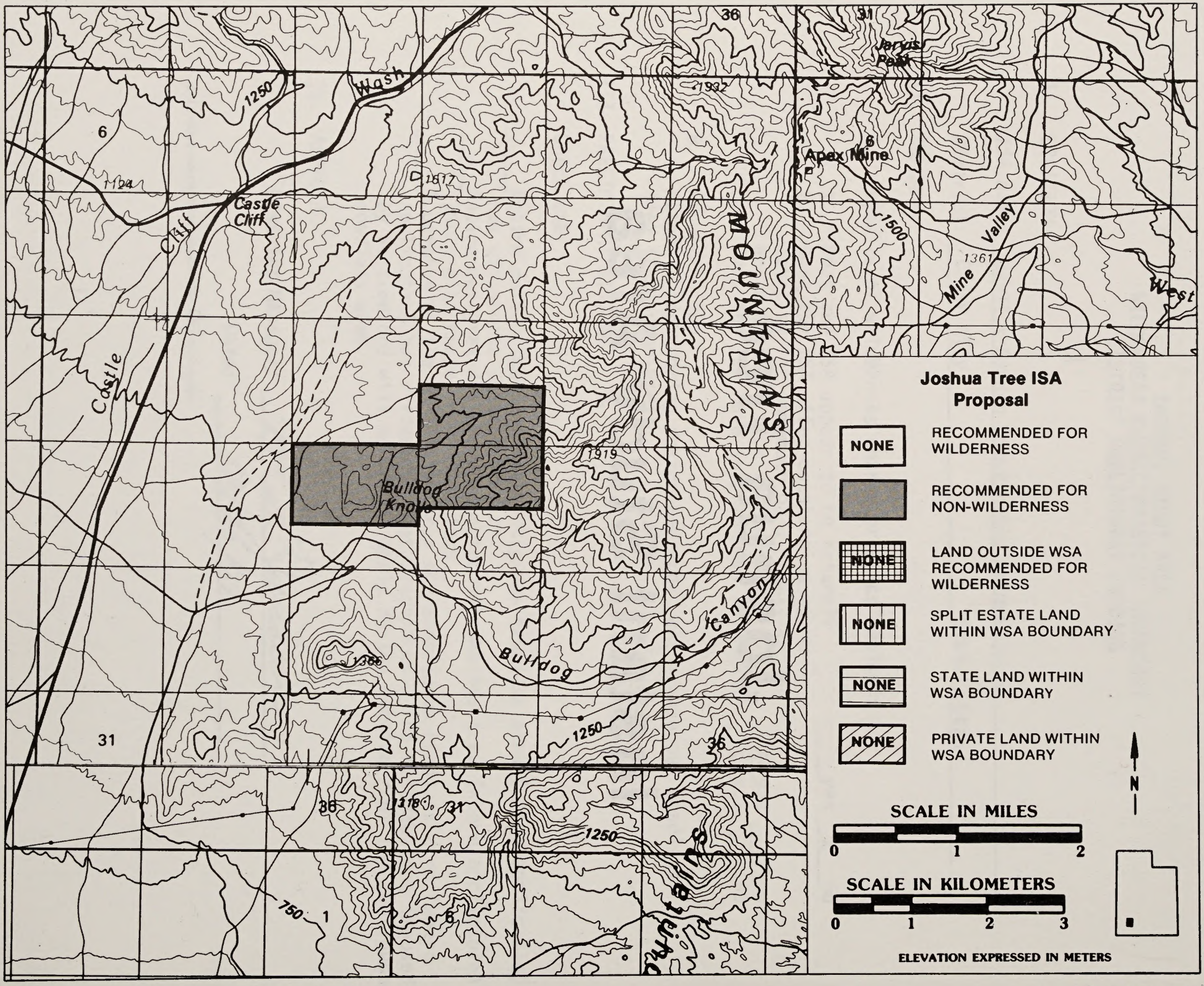
☆U.S. GOVERNMENT PRINTING OFFICE: 1983—680-748/424

Joshua Tree

Instant Study Area

R. 18 W.

T. 43 S.



JOSHUA TREE ISA

October 1991

JOSHUA TREE NATURAL AREA (NATURAL LANDMARK)

STATISTICAL SUMMARY
JOSHUA TREE NATURAL AREA (NATURAL LANDMARK)
WASHINGTON COUNTY, UTAH - CEDAR CITY DISTRICT

	Previously Designated Area	Contiguous Lands (if Any)	Total
Acres with Wilderness Characteristics	0	None	0
Acres without Wilderness Characteristics Recommended Against Designation	1,040	None	0
Total	1,040	None	0

Ownership in Study Area (April 14, 1980)

BLM	1,040 Acres
Forest Service	0 Acres
Private	0 Acres

RECOMMENDATION

JOSHUA TREE NATURAL AREA (NATURAL LANDMARK)

The Joshua Tree Natural Area (Natural Landmark) has been found to lack those wilderness characteristics described in the Wilderness Act of September 3, 1964. The limited opportunity for solitude is not outstanding. No opportunity for a primitive and unconfined type of recreation is outstanding in quality. There is no diversity in the number of recreational activities possible. BLM recommends to the Secretary of the Interior that Congress find the Natural Area (Natural Landmark) nonsuitable for preservation as wilderness.

District Manager M. L. Jensen District Cedar City

Date 7/26/81

State Director Dean Stepanek State Utah

Date 4/9/81

Director /s/ Robert F. Burford

Date July 22, 1983

JOSHUA TREE NATURAL AREA (NATURAL LANDMARK)

RECOMMENDATION
SUMMARY STATEMENT OF REASONS FOR THE RECOMMENDATION

Results of Wilderness Characteristics Review: The Utah State Director has determined that the Joshua Tree Instant Study Area (ISA) possesses naturalness, but lacks outstanding opportunities for solitude, and for primitive and unconfined types of recreation. An Analysis of each wilderness characteristic follows.

Naturalness: The only evidence of man identified in the ISA is a small area of minerals exploration located on the southern boundary of the unit. This intrusion is apparently on the boundary and it is difficult to determine if the shafts are indeed within the ISA. The appearance of this intrusion is not substantially noticeable. It does not influence the naturalness of the area. With the exception of this possible intrusion, there is no evidence of man in the ISA and the area possesses the wilderness characteristic of naturalness.

Outstanding Opportunity for Solitude: It would be difficult to avoid sights, sounds, and evidence of other people in most of the ISA because of its small size, the openness of the desert shrub vegetative cover, and lack of topographic relief. Visitors could screen themselves from one another in the ridge area of Section 22. However, only approximately 160 acres would afford any opportunity for solitude in the ridge area. This limited opportunity would not be considered an outstanding opportunity for solitude.

Outstanding Opportunity for Primitive and Unconfined Recreation: Because of the small size of the ISA, opportunities for those types of primitive and unconfined recreation activities dependent upon a sustained period of participatory time are not present. For example, backpacking is not possible within the unit. Opportunities for nonmotorized and nondeveloped types of recreation activities such as hiking and horseback riding are limited because approximately one-fourth of the terrain in this small area cannot be ridden or hiked. The hiking and horseback riding opportunities are not of outstanding quality. The ISA does possess opportunities for a limited number of activities such as bird watching, rock climbing, and sightseeing for botanical features that are not dependent upon the geographical size of the area. The number of such activities is not considered sufficient to meet the diversity standard for outstanding opportunities specified in the Wilderness Inventory Handbook.

An analysis of the public comments on the Utah State Director's proposal that the Joshua Tree NA lacked wilderness characteristics indicates that none of the comments would justify changing the proposed determination of wilderness character. The Utah State Director's final decision that the NA lacked wilderness character was announced in the May 5, 1980 Federal Register.

Economic and Social Impacts: A suitability or nonsuitability recommendation is required of the Secretary by the Federal Land Policy and Management Act of 1976 (FLPMA). Because the recommendation does not constitute a change in the status or administration of the area, it generates no economic or social impacts. The NA has been managed under the interim management stipulations of section 603(c) of the FLPMA and interim management will continue until Congress determines otherwise.

Analysis of Long-Term and Short-Term Effects of the Recommendation: The recommendation is that the Joshua Tree NA is nonsuitable for designation as wilderness. No lists of uses compatible and incompatible with the purposes of designation have been prepared. No long-term and short-term effects are associated with this recommendation.

Options Foregone if Recommendation is Adopted: If Congress does not add the Joshua Tree NA to the NWPS, the option of Wilderness Area status and any possible enabling legislative direction for the area would be lost.

BACKGROUND INFORMATION

Statement on Previous Designation: The Joshua Tree Natural Area (Natural Landmark) was designated on June 16, 1970 by the Utah State Director by virtue of authority vested in the Secretary of the Interior under the Classification and Multiple Use Act of September 19, 1964 and R.S. 2478 (43 U.S.C. 120), and pursuant to the provisions of 43 CFR Subpart 1727.

Significant Resource Data: The significant resource in the Joshua Tree NA is the Joshua Tree vegetation association. This vegetative association is described by Wauer in his evaluation of the Joshua Tree NA for its eligibility for registered Natural Landmark designated. (Quoted verbatim)

> The . . . "Natural Area" is but a small part of several thousand acres of Joshua Tree Forest. The lower fringe of Joshua Trees begin at approximately 2,000 feet elevation along the south slope of the Beaver Dam Mountains where the ridges drop into the low desert scrub environment of Beaver Dam Wash. The forest intergrades with the pinyon-

juniper association along the upper slopes at an elevation of about 5,500 feet, above which the pinyon-juniper is dominant. Fingers of Joshua Trees extend along the wash and below the pinyon-juniper woodland for about 18 miles.

It is the only Joshua Tree Forest in Utah and the northernmost stand of tree yuccas in the United States, except for insignificant stands that occur north to central Nevada in the vicinity of Tonopah and along the slopes of the Pahranagat Mountains.

Of major importance is the Joshua Tree Association itself, of which Joshua Tree (Yucca Breviflora) is dominant. Other plants that reach the northern edge of their range here include the Utah Agave (Agave utahensis), Barrel Cactus (Echinocactus wislizenii), and Cottontop Cactus (Echinocactus polycephalus). The latter three species prefer the limestone outcrops that occur throughout the Beaver Dam Mountains.

The general vegetation along the southwestern bajada is predominantly of Mohave Desert affinity. Common species include Yucca baccata, Blackbrush, Creosotebush, Ephedra nevadensis, Cholla, Goldenhead (Acamptopappus spaerocephalus), Wolfberry, Burrobrush, and Bursage. From the standpoint of annual forbs, Filaree and Dwarf milkvetch are by far the most abundant. The larger washes usually are well lined with Desert Almond (Prunus fasciculata) and Honey Mesquite.

The presence of the Joshua Tree Association is principally due to ideal edaphic conditions formed by well drained sands and gravels that form coarse detrital soils. Examination of the unconsolidated alluvium in the forest area indicates that the ancient crystalline basement to the northwest is the local source terrain. Paleozoic carbonate rocks are also present in the loose detritus. While in the uppermost slopes of the Joshua Tree Forest a thrust plane crops out northwest-southeast and dips about 25 degrees west.

The age of the thrusting may be early to mid-Tertiary before basin and range faulting began. Older alluvium crops out from beneath the most recent alluvial sediments in the bedrock slopes of the bajada. These coarse loosely consolidated gravels probably are Pleistocene and like the overlaying alluvium of more recent age, were derived from erosion of the Beaver Dam Mountains to the north and east. About twenty huge slabs of Mississippian limestone rest on gravels of this older alluvium.

> The whole of the association is conducive to a good variety of animal life; again mostly of the Mohave Desert affinity. Of real significance are the number of animals that reach the northern edge of their range at this particular location. Reptiles include the Desert Tortoise, desert Iguana, and Gila Monster. Both the Cactus Wren and Scott's Oriole may be included in this group as is the Kit Fox. (Roland Wauer, August 1966, Evaluation of Joshua Tree Natural Area, Washington County, Utah, for eligibility for Registered Natural Landmark Designation.)

This vegetative association is also described by Atwood. (Quoted verbatim)

> One of the primary values is that the area represents the northern most extension for several of its components, such as, wild Rue (Thamnosna montana), Barrel Cactus (Ferocactus lecontri), Joshua Tree (Yucca brevifola), Beaver Dam crypantha (Crypantha virginensis), Utah Agave (Agave utahensis) and Cliff penstemon (Penstemon petiolatus). The latter two species are threatened or endangered. The area has been of interest to many scientists and university groups. Dr. C.C. Parry visited the area in 1874. After Dr. Parry's visit many other important botanists were attracted to the area. Dr. Edward Palmer came in 1877, M.E. Jones in 1880, Merriman and Bailey (Death Valley expedition) traveled to the region in 1891 and many others followed. University groups from all the western states have and continue to make botanical and zoological excursions to the Beaver Dam slopes. In addition, 50 percent of the plant species found here occur only in the Lower Sonoran zone. Portions of the area are transitional between the lower and upper Sonoran zones. This feature is unique to the region and is of great scientific value . . . A primary concern, which I have, is the area that has been designated. It does not represent the typical type in southwestern Utah. There are areas west of the highway which could serve better as research natural areas. (Duane Atwood, August 20, 1976, Memorandum to Morgan Jensen, "Joshua Tree Natural Area".)

(In the reports quoted above it is recognized that there are differences in the spelling and plant names used.)

Both of the foregoing reports conclude that the significant resource value of the NA(NL) is that the area represents one of the northern most extensions of the Joshua Tree vegetative association. The Atwood

citation, however, argues that the most representative and significant location is west of the NL area identified in the National Park Service eligibility report.

Summary of Public Participation:

Description of Process: An intensive inventory for the Joshua Tree NA was completed by the Cedar City District Office wilderness staff on November 23, 1979. No public requests for field participation in the inventory were received.

The Utah State Director's proposed decision on wilderness characteristics was announced in the January 16, 1980 Federal Register (pp. 3114-3115) and a 30-day public comment period initiated from January 16, 1980 to February 15, 1980. The Utah State Office distributed a summary narrative, map, and news release to the public on January 17, 1980.

An analysis of these comments by the Ceder City District indicated that none of the comments justified a change in the proposed decision. On April 4, 1980 the Ceder City District Manager recommended to the Utah State Director that the final decision on the Joshua Tree ISA be that the ISA lacks wilderness characteristics.

Summary of Analysis of Comments: Three of the letters referred to all of the ISA units (Joshua Tree, Link Flat, Book Cliff, and Devil's Garden). One letter states that:

> The criteria by which the BLM determines wilderness status is oftentimes excessively strict, particularly where the 5,000-acre requirement is concerned. Ecosystems do not need 5,000-acres to be sustained.

This comment was not considered because by policy ecosystem representation is not a wilderness characteristic and because by law there is no 5,000-acres requirement for ISAs. The other two letters stated that:

> Upon review of your comments with respect to these areas and the accompanying plats, please be advised that we concur with your proposed decisions that none of these ISAs possess wilderness characteristics.

and:

> I would have to agree wholeheartedly on the decisions to exclude all four areas from wilderness consideration based on the description as presented in the January 17th publication.

The remaining three letters disagree with the State Director's proposed decision on the Joshua Tree ISA. One letter states that:

> I urge the BLM to recommend wilderness protection for the Joshua Tree I.S.A. despite its size an lack of outstanding opportunity for solitude and primitive, unconfined recreation. The concept of solitude is a state of mind which is different with each individual and is not limited by an area's size. Likewise, the opportunity for primitive, unconfined recreation should be considered from the view that different persons can appreciate an area's naturalness in varying degrees. Joshua Tree I.S.A. should not be penalized because the climate dictates an open desert shrub vegetation, but rather it should be protected because of its naturalness and unique value as part of the Wilderness System.

This comment agrees that the ISA lacks outstanding opportunities for solitude and primitive recreation and disagrees with the Wilderness Inventory Handbook procedures for evaluating these characteristics. One letter made an extensive comment about the Joshua Tree decision. The entire comment is printed below.

> Now to your latest round of elimination: Joshua Tree Instant Study Area. One of your reasons to eliminate this study area is that another study area (Starvation Point) has Joshua Trees in a more representative area and that area is being considered for wilderness. This is a hellava excuse to drop a Study Area. We have no assurance for 10 years or more that a Joshua Tree habitat type will even be included in a wilderness area. And next year you will probably drop the Starvation Point because IPP will have a transmission line visible from one point within the wilderness area. Second, when one habitat integrates with a second habitat, it is even more interesting biologically than an uniform habitat. This makes it a different wilderness area than an uniform habitat. Then you mention small size and closeness of human impacts. A thousand acres is much too large for solitude feelings of outstanding nature. One only needs a few acres for such feelings as long as a thousand acres are pro-

> tected. Then you say that one-fourth of the terrain in this small area cannot be ridden or hiked. This sounds very wild. Most of the Wind Rivers cannot be ridden. It seems that the BLM is stacking the deck with a bunch of lame reasoning to prevent lands from becoming wilderness study areas. The BLM seems to have rather corrupt values in its determination of naturalness, opportunity for solitude, and opportunity for primitive and unconfined recreation.

Many of the assumptions in this comment are erroneous. The Starvation Point WSA was described in the description section of the ISA narrative. The wilderness characteristics determination for the Joshua Tree ISA did not consider the presence of the Starvation Point WSA. The reference to "habitat integration" was also made in the description section and was not considered in the analyses of wilderness characteristics. The comment states that "a thousand acres is much too large for solitude feelings of outstanding nature." The BLM proposal, however, states that it would be difficult to avoid the sights, sounds, and evidence of other people in most of the ISA because of its small size, the openness of the desert shrub vegetative cover, and the lack of topographic relief. The comment states that because one-fourth of the terrain cannot be ridden or hiked, the area is "very wild." The BLM proposal considered the amount of hiking or riding opportunity to determine if these activities were of individually outstanding quality. The proposal states that the area does possess the naturalness ("wild"?) characteristic.

The final comment disagrees with the findings concerning outstanding solitude and outstanding primitive recreation in the ISA. The comment is printed below.

> Our disagreement with your decision on the Joshua Tree ISA is based upon several factors. In your report you stated, "It would be difficult to avoid sights, sounds, and evidence of other people in <u>most</u> of the ISA because of its small size, the openness of the desert shrub vegetation, and lack of topographic relief". In the same paragraph you indicated that 160 acres of the area could afford solitude. The Organic Act Directive (OAD) No. 78-61 Chg. 3 states "It is erroneous to assume that simply because a unit or portion of a unit is flat, and/or unvegetated, it automatically lacks an outstanding opportunity for solitude". It also states: ". . . It must be documented that there is neither an outstanding opportunity for solitude not for primitive and unconfined recreation". The whole area is not required to provide outstanding opportunities in order to meet this criteria. You have indicated that 160 acres of this unit do not have opportunities for solitude and have defined the rest as not having like qualities because the unit is, ". . . small size, the openness of the desert vegetation cover, and lack of topographic relief". In your report you indicated that the lowest elevation in the unit is 3,360 feet and the highest is 5,720 feet. This gives this unit a topographic relief of 2,400 feet which is definitely not lacking in topographic relief.
>
> Regarding your comments on the outstanding opportunity for primitive and unconfined recreation, you indicated that while the area does have certain recreational opportunities, "the number of such activities is not considered sufficient to meet the diversity standard set for outstanding opportunities specified in the <u>Wilderness Inventory Handbook</u>". We consider opportunities for hiking, horseback riding, bird watching, rock climbing, and sightseeing for botanical features to represent sufficient diversity.
>
> In conclusion, we feel you need to further document and clarify in each case why these units were eliminated from further wilderness consideration . . . In the Joshua Tree area you need to ensure that the rationale is consistent with inventory policy and to fully document the reasons why this area does not meet the Wilderness Act 2(c) criteria.

The BLM proposal states that outstanding opportunities for solitude are lacking throughout the area. The comment erroneously assumes that the evaluation is in violation of OAD 78-61 because a portion of the area contains outstanding opportunities. The BLM proposal also states some opportunity for solitude is offered by topographic screening in the limited area where topographic relief is found.

The BLM proposal states that three activities (bird watching, rock climbing, sightseeing for botanical features) is not a sufficient number of activities to satisfy the <u>Blue Book</u> diversity standard. The BLM proposal

indicates that hiking and riding opportunities are inferior because of the small area available. It was assumed that hiking and riding are possible on any inventory unit in the BLM and that these particular activities could not contribute to the variety of activities available in any unit.

A copy of each of these comments is in the Cedar City District's Permanent Documentation File.

Cultural Resource Clearance: On March 27, 1981, Dr. Melvin T. Smith, Utah State Historic Preservation Officer, was contacted by letter and informed of the nonsuitable for preservation recommendation for the Joshua Tree ISA.

INSTANT STUDY AREA
WILDERNESS CHARACTERISTICS INVENTORY
DISTRICT PRELIMINARY FINDING

I. LOCATION

ISA name: Joshua Tree Natural Area (Natural Landmark)

District: Cedar City State: Utah

II. SUMMARY:

A. Results of wilderness characteristics analysis.

1. Does the ISA appear to be natural?	X yes	____ no
2. Does the ISA offer outstanding opportunities for solitude or a primitive and unconfined type recreation?	____ yes	X no
3. Does the ISA have supplemental values?	X yes	____ no

B. Resulting map.
Attach a map showing designated area (and contiguous roadless area if appropriate).

III. PRELIMINARY FINDING

Check one:

____ Entire designated area and contiguous roadless area (where applicable) has wilderness characteristics.

X Entire designated area and contiguous roadless area (where applicable) lacks wilderness characteristics.

____ A portion of the designated area and contiguous roadless area (where applicable) has wilderness characteristics. The restrictions imposed by Section 603 will no longer apply on the remainder of the contiguous roadless area.

IV. APPROVAL

District Manager: W. L. Jensen

Date: 12/18/79

☆U.S. GOVERNMENT PRINTING OFFICE: 1983—680-748/424

Escalante Canyons Tract 1

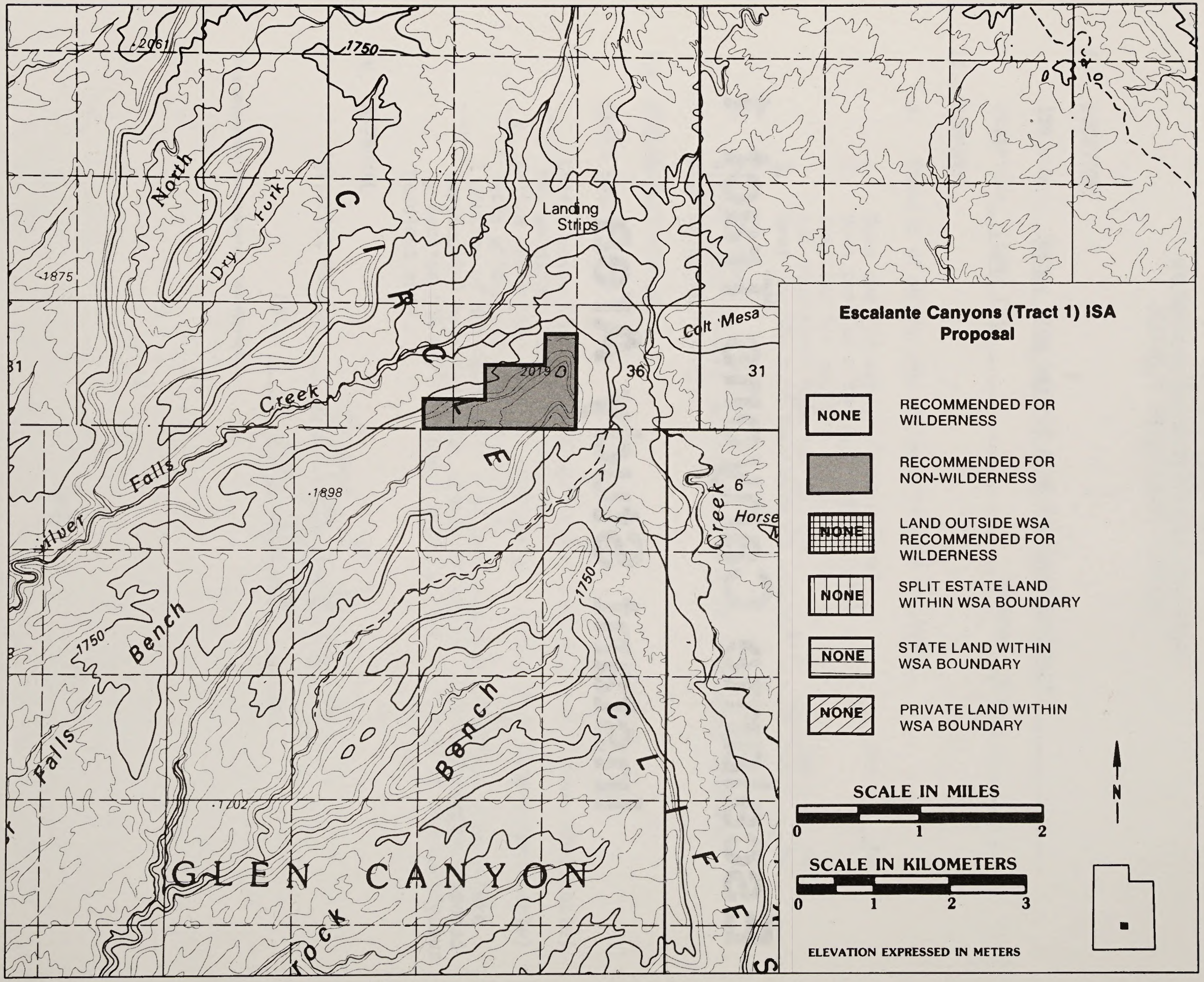
Instant Study Area

R. 7 E.

R. 8 E.

T. 35 S.

T. 36 S.



Escalante Canyons (Tract 1) ISA Proposal

NONE	RECOMMENDED FOR WILDERNESS
	RECOMMENDED FOR NON-WILDERNESS
NONE	LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS
NONE	SPLIT ESTATE LAND WITHIN WSA BOUNDARY
NONE	STATE LAND WITHIN WSA BOUNDARY
NONE	PRIVATE LAND WITHIN WSA BOUNDARY

SCALE IN MILES

0 1 2

SCALE IN KILOMETERS

0 1 2 3

N

ELEVATION EXPRESSED IN METERS

October 1991

ESCALANTE CANYONS (TRACT 1) ISA

ESCALANTE CANYONS (TRACT 1) OUTSTANDING NATURAL AREA

STATISTICAL SUMMARY
ESCALANTE CANYONS (TRACT 1) OUTSTANDING NATURAL AREA
GARFIELD COUNTY, UTAH - CEDAR CITY DISTRICT

	Previously Designated Area	Contiguous Lands (if Any)	Total
Acres with Wilderness Characteristics	0	None	0
Acres without Wilderness Characteristics Recommended Against Designation	360	None	0
Total	360	None	0

Ownership in Study Area (February 5, 1981)

BLM	360 Acres
Forest Service	0 Acres
Private	0 Acres

RECOMMENDATION

ESCALANTE CANYONS (TRACT 1)

OUTSTANDING NATURAL AREA

The Escalante Canyons (Tract 1) Outstanding Natural Area has been found to lack those wilderness characteristics described in the Wilderness Act of September 3, 1964. The Outstanding Natural Area lacks the wilderness characteristics of outstanding opportunities for solitude and for primitive and unconfined types of recreation. BLM recommends to the Secretary of the Interior that Congress find the Outstanding Natural Area (Tract 1) nonsuitable for preservation as wilderness.

District Manager M. L. Jensen District Cedar City

Date 4-3-81

ACTING State Director Jean Stypanich State Utah

Date 4/8/81

Director /s/ Robert F. Burford

Date July 22, 1983

ESCALANTE CANYONS (TRACT 1) OUTSTANDING NATURAL AREA

RECOMMENDATION
SUMMARY STATEMENT OF REASONS FOR THE RECOMMENDATION

Results of Wilderness Characteristics Review: The Escalante Canyons (Tract 1) Instant Study Area does not possess the wilderness characteristics described in the Wilderness Act of September 3, 1964. The ONA lacks the wilderness characteristics of outstanding opportunity for solitude and outstanding opportunity for primitive and unconfined types of recreation. During the wilderness characteristics inventory, 446 acres of contiguous public lands were inventoried for wilderness characteristics. None of the contiguous area possess wilderness characteristics. An analysis of each wilderness characteristic follows.

Naturalness: The unit is natural except for two substantially noticeable ways along the northern border. The area determined to lack the naturalness characteristic contains 41 acres and is in the contiguous public lands. One other way has rehabilitated naturally and is considered to be substantially unnoticeable. The portion of the unit which possesses the naturalness characteristic contains 765 acres and includes all of the ONA.

Outstanding Opportunity for Solitude: None of the ONA offers outstanding opportunities for solitude. The small size of the unit in conjunction with a lack of topographic and vegetative screening precludes outstanding opportunities for solitude. The area north of Silver Falls Bench is relatively flat and contains only scattered pinyons and junipers. The cliffs of Silver Falls Bench are exposed to the rest of the unit and thus offer no opportunities for isolation or seclusion. These factors make it extremely difficult to avoid the sights, sounds, or other evidence of people within the unit.

Outstanding Opportunity for Primitive and Unconfined Recreation: The ONA does not offer outstanding opportunities for primitive and unconfined recreation. The topography limits hiker movement within the unit and the opportunity for activities such as hiking is not outstanding. Rock climbing could occur on the cliffs of Silver Falls Bench, but it would be dangerous and of less than outstanding quality because of the instability of the rock structure.

The Utah State Director published his decision that the entire inventory unit (ONA and contiguous roadless area) lacked wilderness characteristics in the November 14, 1980 Federal Register. All public comments agreed with the State Director's April 1980 proposed decision that the unit lacked wilderness character. No protests were filed and the final decision became effective with publication of a "Notice" in the December 31, 1980 Federal Register. At this time, the contiguous public lands were deleted from the wilderness review and any interim protection responsibility under Section 603(c) of the Federal Land Policy and Management Act (FLPMA) of 1976.

Economic and Social Impacts: A suitability or nonsuitability recommendation is required of the Secretary by the FLPMA. Because the recommendation does not constitute a change in the status or administration of the area, it generates no economic or social impacts. The ONA (Tract 1) has been managed under the interim management stipulations of section 603(c) of the FLPMA and interim management will continue until Congress determines otherwise.

Analysis of Long-Term and Short-Term Effects of the Recommendation: The recommendation is that the Escalante Canyons (Tract 1) ONA is nonsuitable for designation as wilderness. No lists of uses compatible and incompatible with the purposes of designation have been prepared. No long-term and short-term effects are associated with this recommendation.

Options Foregone if Recommendation is Adopted: If Congress does not add the Escalante Canyons (Tract 1) ONA to the NWPS, the option of Wilderness Area status and any possible enabling legislative direction for the area would be lost.

BACKGROUND INFORMATION

Statement on Previous Designation: An approximately 129,000-acre Escalante Canyons ONA was designated on December 23, 1970 by the Utah State Director by virtue of authority vested in the Secretary of the Interior under the Classification and Multiple Use Act of September 19, 1964 and R.S. 2473 (43 U.S.C. 1201), and pursuant to the provisions of 43 CFR Part 2070.

On December 18, 1971, Congress (Public Law 92-207) designated 1,181 acres of the Escalante Canyons ONA as part of the Capitol Reef National Park. On October 27, 1972, Congress (Public Law 92-593) designated 126,659 acres of the Escalante Canyons ONA as part of the Glen Canyon National Recreation Area. Only 1,160 acres in five disjunct tracts and within three discrete roadless areas remain of the Escalante Canyons ONA. Tracts 2 (80 acres), 3 (80 acres), and 4 (320 acres) were inventoried for wilderness characteristics during the inventory of Escalante Canyons (Tracts 2, 3, and 4) ISA. Tract 5 (320 acres) was inventoried for wilderness

characteristics during the inventory of the 760-acre Escalante Canyons (Tract 5) ISA.

Significant Resource Data: The cliffs of Silver Falls Bench are a minor part of the Circle Cliffs which have been given a high rating for scenery quality in the BLM's Visual Resource Management analysis. No other significant resources are present within this tract of the Escalante Canyons ONA.

Summary of Public Participation:

Description of Process: An intensive inventory of the Escalante Canyons (Tract 1) ISA was completed by the Cedar City District Office wilderness staff on March 11, 1980. No public requests for field participation in the inventory were received.

The Utah State Director's proposed decision on wilderness characteristics was announced in the March 28, 1980 Federal Register (page 20576). A supplement to this announcement appeared in the April 24, 1980 Federal Register (pages 27831-27834). The summary narrative and map were published in the BLM Intensive Wilderness Inventory Proposed Wilderness Study Areas, Utah, April 1980 and Errata Sheet. A 90-day public comment period on the proposed decision began April 2, 1980 and ended June 30, 1980.

The Utah State Director published a final decision that the ONA and contiguous lands lacked wilderness characteristics in the November 4, 1980 Federal Register (pages 75602-75606). The decision was also published in the BLM Intensive Wilderness Inventory Final Decision on Wilderness Study Areas, Utah, November 1980 distributed to the public. No protests were filed and the final decision became effective with the "Notice" in the December 31, 1980 Federal Register (pages 86556-86558).

Summary of Analysis of Comments: Two comments were submitted to the Utah State Director concerning the presence or absence of wilderness characteristics in the Escalante Canyons (Tract 1) unit. Both comments agreed with the BLM's proposal that neither the ONA nor the contiguous lands possessed wilderness characteristics. Copies of both comments are in the Permanent Documentation Files.

Cultural Resource Clearance: On February 24, 1981, Dr. Melvin T. Smith, Utah State Historic Preservation Officer, was contacted by letter and informed of the nonsuitable for preservation recommendation for the Escalante Canyons (Tract 1) ISA.

INSTANT STUDY AREA
WILDERNESS CHARACTERISTICS INVENTORY
DISTRICT PRELIMINARY FINDING

I. LOCATION

ISA name: Escalante Canyons (Tract 1)

District: Cedar City State: Utah

II. SUMMARY:

A. Results of wilderness characteristics analysis.

1.	Does the ISA appear to be natural?	X yes	no
2.	Does the ISA offer outstanding opportunities for solitude or a primitive and unconfined type recreation?	yes	X no
3.	Does the ISA have supplemental values?	X yes	no

B. Resulting map.
Attach a map showing designated area (and contiguous roadless area if appropriate).

III. PRELIMINARY FINDING

Check one:

____ Entire designated area and contiguous roadless area (where applicable) has wilderness characteristics.

__X__ Entire designated area and contiguous roadless area (where applicable) lacks wilderness characteristics.

____ A portion of the designated area and contiguous roadless area (where applicable) has wilderness characteristics. The restrictions imposed by Section 603 will no longer apply on the remainder of the contiguous roadless area.

IV. APPROVAL

District Manager: M. S. Jensen

Date: 3-24-80

☆U.S. GOVERNMENT PRINTING OFFICE: 1983—680-748/424

Book Cliffs Mountain Browse

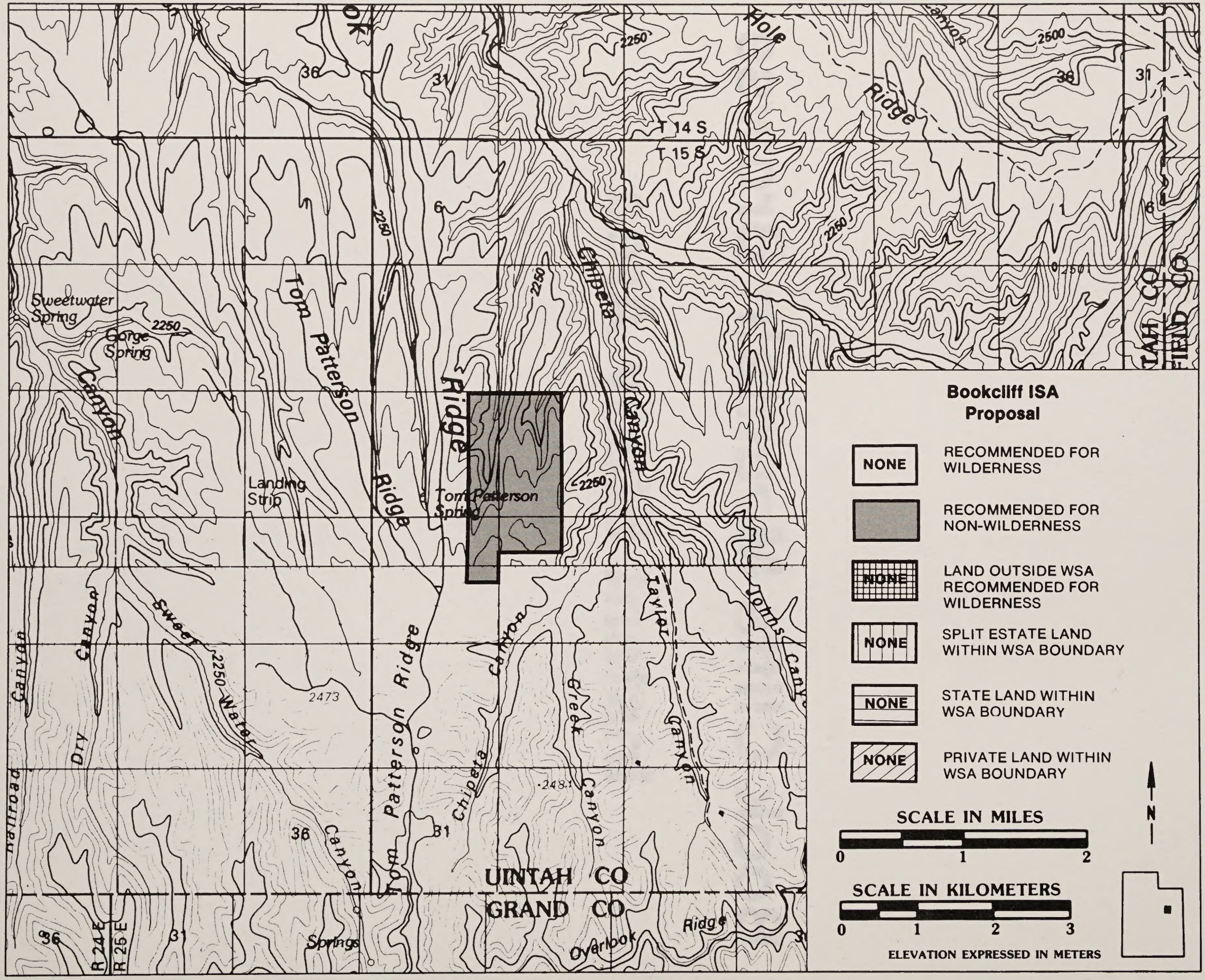
Instant Study Area

R. 24 E.

R. 25 E.

T. 15 S.

BOOKCLIFF ISA



Bookcliff ISA Proposal

NONE	RECOMMENDED FOR WILDERNESS
	RECOMMENDED FOR NON-WILDERNESS
NONE	LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS
NONE	SPLIT ESTATE LAND WITHIN WSA BOUNDARY
NONE	STATE LAND WITHIN WSA BOUNDARY
NONE	PRIVATE LAND WITHIN WSA BOUNDARY

SCALE IN MILES

0 1 2

SCALE IN KILOMETERS

0 1 2 3

ELEVATION EXPRESSED IN METERS

N

October 1991

BOOK CLIFFS MOUNTAIN BROWSE NATURAL AREA

STATISTICAL SUMMARY
BOOK CLIFFS INSTANT STUDY AREA (MOUNTAIN BROWSE NATURAL AREA)
UINTAH COUNTY, UTAH - VERNAL DISTRICT

	Previously Designated Area	Contiguous Lands (if Any)	Total
Acres with Wilderness Characteristics	0	None	0
Acres without Wilderness Characteristics Recommended Against Designation	400	None	0
Total	400	None	0

Ownership in Study Area (October 29, 1968)

BLM	400 Acres
Forest Service	0 Acres
Private	0 Acres

Recommendation

The Bookcliffs Mountain Browse Natural Area is recommended as non-suitable for preservation as wilderness.

Vernal District Manager Bart Bonnin (ACTING) 4-1-80
Date

Utah State Director Doug J. Wick APR 18 1980
Date

Director /s/ Robert F. Burford July 22, 1983
Date

BOOK CLIFFS MOUNTAIN BROWSE NATURAL AREA

RECOMMENDATION
SUMMARY STATEMENT OF REASONS FOR THE RECOMMENDATION

A. Results of the Review for Wilderness Characteristics. This area was reviewed under the authority of Section 603(a) of the Federal Land Policy and Management Act (FLPMA) of 1976 and in accordance with Section 2(c) of the Wilderness Act of 1964.

The intensive wilderness inventory of the Book Cliffs Mountain Browse Natural Area revealed:

1. The area does not appear to have been affected primarily by the forces of nature with the imprint of man's work being substantially unnoticeable.

2. The area does not have outstanding opportunities for solitude.

3. The area does not have outstanding opportunities for a primitive or unconfined type of recreation.

B. Economic and Social Impacts.

The recommendation will not create any significant impacts on economic and social aspects of the study area and surrounding region.

C. Long-Term and Short-Term Effects

The Natural Area is recommended to be managed according to the pre-FLPMA guidelines as stated in the Book Cliffs' Unit Resource Analysis. No short-term effects are associated with the recommendation. The long-term effect will be to maintain and preserve a 400-acre representative area of the Book Cliffs Mountain Browse vegetative type for scientific and ecologic study.

D. Options Foregone if the Recommendations are Adopted

The option of the area becoming a part of the National Wilderness Preservation System (NWPS) will be foregone if the recommendation is adopted.

E. Study Area Summary and Recommendation

Book Cliffs Instant Study Area (Mountain Browse Natural Area)

This Instant Study Area (ISA) is located approximately 75 air miles south of Vernal, Utah and 50 air miles northwest of Grand Junction, Colorado. It contains 400 acres of public land. General vegetation includes primarily sagebrush and squaw-apple with small thickets of Gamble Oak, serviceberry and Mountain mahogany. The topography is a gentle rolling ridge top which gradually slopes downhill to the north and east. Private land borders a portion of the eastern boundary. The rest of the ISA is surrounded by BLM-administered lands. Lands contiguous to the ISA were reviewed for wilderness characteristics during the initial inventory, and it was determined that none of the surrounding land contained wilderness characteristics and was dropped from the wilderness review process in September 1979.

Naturalness

Naturalness is not outstanding because of a fence, way, and spraying. The cumulative effect is that the visitor senses the presence of man.

The bladed fenceline and barbed wire fence divides the ISA. The blading and lineal imprint makes the fence visually noticeable.

A way runs through the western half of the ISA and ends at the fence. The way is used for access by hunters in the fall. Though not maintained, it is an imprint that shows the evidence of man.

The aerial spraying along the western edge of the ISA is visually evident. In the sprayed area, remains of woody shrubs still exist, and ground cover changes from predominantly shrubs to grass.

Outstanding Opportunities for Solitude

The 400-acre ISA is not of sufficient size to gain a sense of isolation or freedom of movement with minimal contact with others. There is a lack of areas where an individual can find seclusion. Minimal topographic relief and smallness of size make it easy to spot others in the ISA although vegetation provides some natural screening.

Outstanding Opportunity for Primitive and Unconfined Recreation

The ISA offers very little primitive or unconfined recreational opportunity due to its small size. No outstanding vistas or sense of vastness exist. No running water exists on the ISA. Because the ISA is gently rolling, the topography presents no special challenge or interest.

The vegetation is not unique to this ISA only, as the mountain browse type grows along most of the Book Cliffs Divide. For those interested in the scientific aspects, the ISA has botanical sightseeing features.

No archaeological or paleontological sites were recorded during the survey of the ISA.

Recommendation

The Book Cliffs Mountain Browse Natural Area is being recommended as nonsuitable for wilderness designation and is recommended to retain its present status as a natural area for its ecological and scientific qualities.

No additional support needs or resource commitments will be needed to implement the proposal. The proposal will require no change in management actions. The Book Cliffs Mountain Browse Natural Area is to be continued to be managed by prior guidelines as identified in the Book Cliffs URA.

BACKGROUND INFORMATION

A. Statement on Previous Designation

On October 29, 1968, the area known as the Book Cliffs Mountain Browse Natural Area, located at T15S, R25E, Sec. 17, SW1/4; Sec. 18, E1/2 SE1/4; Sec. 19, E1/2 NE1/4; Sec. 20, N1/2, NW1/4, SLBM was designated as a natural area. The area was classified for multiple use with livestock grazing being administratively excluded from the area. The area has been segregated from all forms of appropriation, including general mining laws and the mineral leasing laws.

B. Significant Resource Data

The area is a representative sample of the Book Cliffs Mountain Browse vegetative type. Dominant species include birchleaf mahogany, serviceberry, antelope bitterbrush, Gamble oak, and big sagebrush. No threatened or endangered vegetation exists. The ISA has limited importance as a wildlife habitat area because of its small size and similar surrounding terrain.

C. Description of Report Area

The surrounding area is characterized as an intermediate mountain plateau. Elevation ranges up to 8,900 feet. Climate is semi-arid with wide temperature variations. The plateau slopes gently to the north and is cut by steep canyons that drain to the northwest. Outcroppings of exposed sedimentary rock of sandstone, shales, and siltstone occur. Soil depth is shallow to medium. Four major vegetative types occur: mixed desert shrub, pinyon-juniper, sagebrush grass, and mountain browse.

The area is zoned for grazing and mining by Uintah County. All public lands are classified for multiple use. Primary land use value is livestock grazing followed by wildlife habitat. Natural gas exploration and production has recently occurred in the area. There is no, or potential for, residential areas, and no industrial-commercial development is expected. Nonproductive forest stands and non-forest lands are characteristic of the area. The area provides mule deer habitat and receives moderately heavy deer hunting pressure. Hunting is the primary use.

D. Summary of Public Participation

1. Description of Process

a. Goals of the public participation were:

To gain public acceptance of the BLM review procedure.

To inform the public about how to participate and make comments on the wilderness inventory.

To notify the public about the final recommendation and decision on the ISA.

b. Process

A District Office news release announced the beginning of the field inventory and encouraged

public participation. Local news media and governmental agencies were contacted.

c. Local Opinions Assessed

District personnel recorded any public reaction observed through formal contacts or discussions. Newspapers were checked for editorials, articles, and published letters.

d. Public Comment Period

An information packet was mailed to individuals and groups on the District's mailing list. A letter was enclosed describing the status of the ISA inventory and solicited opinions and recommendations. Articles were prepared for the local media that encouraged comments on the proposed decision. Neither a public meeting or open house was held by the District due to lack of public interest to the ISA inventory.

e. Final Decision

A District news release will be coordinated with the Washington Office and the State Office releases.

2. Public Comments Summary Analysis

A 30-day public comment period was held from January 17, 1980 to February 15, 1980. Eleven comments were received. A summary of the content of the comments follow:

Six comments agreed with the inventory findings that the ISA lacks wilderness characteristics.

Four comments generally favored wilderness but no specific reasons were given that pertained to the Book Cliffs ISA.

One comment expressed no support, opposition or substantive comments on wilderness.

Analysis

Eleven comments were received in response to the findings of the wilderness characteristics inventory conducted on the Book Cliffs ISA. Six of the comments agreed with the inventory findings that the ISA lacks the appropriate wilderness characteristics and should not be recommended as suitable for wilderness designation by Congress. Four comments favored wilderness designation. These were general in nature and did not provide any information or rationale regarding the proposed decision to drop Book Cliffs ISA from further wilderness consideration. One comment did not indicate whether or not he agreed with the findings of the inventory or if the area should be considered for wilderness designation.

A copy of each of these comments is in the Vernal District's Permanent Documentation File.

BOOK CLIFFS MOUNTAIN BROWSE NATURAL AREA

APPENDIX A - ARCHAEOLOGICAL CLEARANCE SURVEY

Introduction: An archaeological survey was conducted on June 20, 1979 by Nancy Coulam, archaeologist, and Tina Gornick and Earle Smith, both wilderness inventory specialists from the BLM Vernal District Office, for the wilderness inventory of a natural area. The 400-acre natural area is located between Moccasin Trail Canyon and Chipeta Canyon in Uintah County, Utah. Because the public has an interest in the preservation and protection of archaeological, anthropological and paleontological resources, the Federal government has a clear mandate to inventory such resources.

Purpose of the Survey: The purpose of an archaeological survey is to locate, describe and record those prehistoric and historic cultural remains which either: 1) have the potential of yielding significant information about the past; 2) are the sites of known significant events in recorded history, and/or 3) are exemplary of the style of remains for a particular time period. Prehistoric remains are unknown in the area. Paleontological remains common to the Green River Formation (microfossils) could be expected. Historical remains can include anything from isolated Ute or EuroAmerican artifacts to permanent structures.

Location: The natural area is located between McCook Ridge and Chipeta Canyon on the USGS 7.5" quadrangle of Tome Patterson Canyon, Utah at T15S, R25E, SW1/4 of Section 17; E1/2 SE1/4 of Section 18; E1/2 NE1/4 of Section 19; and N1/2 NW1/4 of Section 20.

Survey Setting: Since the parcel is presently a fenced natural area at an elevation of roughly 7,800 feet (2,340 m), the vegetation is dominated by dense and snarled Book Cliffs Mountain Browse, composed of Cercocarpus, Amelanchier, Quercus, Prunus. Modern disturbance is minimal and is evidenced by a dirt road.

Survey Procedure: Instead of carefully examining the entire area, a 1 percent random sample was made. This was because the vegetation was so dense and impenetrable that the ground surface was barely visible. The sample selected was a mile-long transect begun arbitrarily at the SW corner of Section 17. East was the direction walked as selected from a random numbers table. The mile-long transect was roughly 20 meters wide, with three people spaced 7 meters apart. This transect shape was selected as more effective statistically since there is a greater probability of discovering sites with long, thin transects than with quadrants that cover an equivalent area.

Survey Results: Neither archaeological nor paleontological remains were observed. While this could possibly be attributed to poor surface visibility, for the cultural material at least it is more likely that the area was not used historically or prehistorically. The Book Cliffs Mountain Browse as the indigenous vegetation type would effectively repel any but the most limited activity (like hunting). Therefore, on the basis of the 1 percent sample transect we expect nothing significant in the entire natural area.

Recommendations: No archaeological or paleontological sites or isolated finds were recorded during the survey of the natural area; however the dense vegetation made observation of the ground surface difficult. Since we extrapolated to the whole area on the basis of a sample, it is recommended that the area be reexamined by a qualified archaeologist when the vegetation is not as dense.

/s/ Nancy Coulan
BLM Archaeologist

WILDERNESS INTENSIVE INVENTORY

WILDERNESS SUMMARY SHEET

I. LOCATION:

Inventory Unit No.: Bookcliffs Instant Study Area

Area Name: Bookcliffs Mountain Browse Natural Area

District: Vernal State: Utah

II. SUMMARY:

A. Results of wilderness characteristics analysis

1.	Does the area appear to be natural?	____	Yes	X No
2.	Does the area offer oustanding opportunities for solitude or a primitive and unconfined type recreation?	____	Yes	X No
3.	Does the area meet any of the size requirements?	____	Yes	X* No
4.	Does the area have supplemental values?	X	Yes	____ No

* Though not meeting size requirements, it was studied for wilderness characteristics because it is an identified Instant Study Area.

III. RECOMMENDATION:

Check one:

____ Area should be approved as a WSA.

__X__ Area does not qualify for wilderness study.

____ A portion of the area should be approved as a WSA for further study and reported to the President. The restrictions imposed by Section 603 will no longer apply (reference to map) on the remainder of the area.

A. Area Manager: Dean L. Evans Date 1-8-80

B. Acting District Manager: Ralph J. Hyatt Date 1/9/80

IV. APPROVAL:

State Director: _____ Date _____

Link Flats

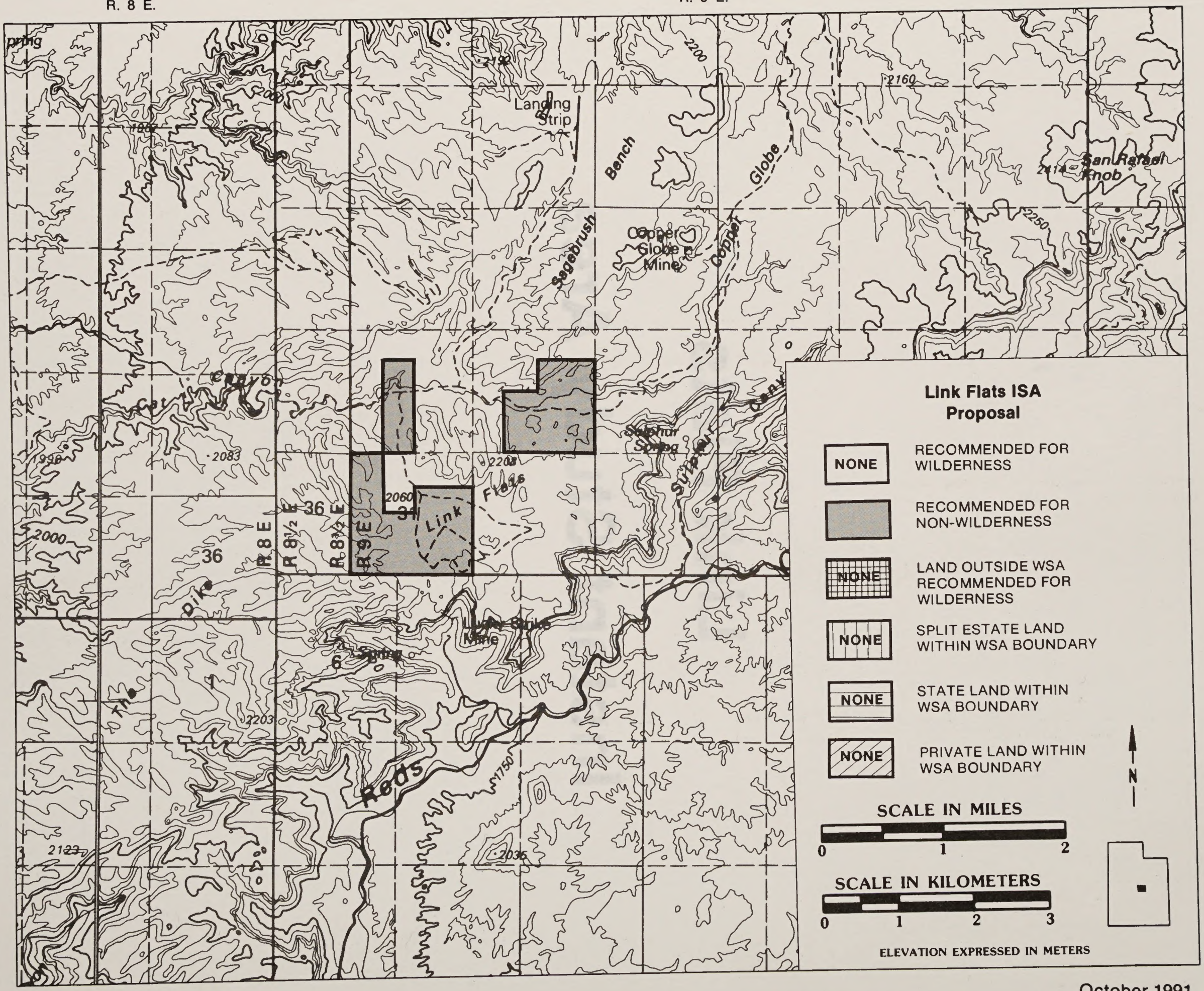
Instant Study Area

R. 8 E.

R. 9 E.

T. 23 S.

T. 24 S.



Link Flats ISA Proposal

NONE	RECOMMENDED FOR WILDERNESS
	RECOMMENDED FOR NON-WILDERNESS
NONE	LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS
NONE	SPLIT ESTATE LAND WITHIN WSA BOUNDARY
NONE	STATE LAND WITHIN WSA BOUNDARY
NONE	PRIVATE LAND WITHIN WSA BOUNDARY

N

SCALE IN MILES

0 1 2

SCALE IN KILOMETERS

0 1 2 3

ELEVATION EXPRESSED IN METERS

October 1991

LINK FLATS ISA

STATISTICAL SUMMARY

Link Flats Natural Area

Emery County, Utah

Moab District, BLM

	North/South	Total Acres	ISA Acres	Previous Designated Area	Contiguous Lands UT-060-025	UT-060-007	UT-050-233*
Acres in Inventory Area	North:	24,210	160	0	24,050	---	---
	South:	219,842	752	0	---	150,930	68,160
Acres without wilderness characteristics	North:	14,600	160	0	14,440	---	---
	South:	188,482	752	0	---	119,570	68,160
Acres with wilderness characteristics	North:	9,610	0	0	9,610	---	---
	South:	31,360	0	0	---	31,360	0
Acres recommended suitable for designation	North:	0	0	0			
	South:	0	0	0	(Suitability study scheduled to begin 1984 - San Rafael RA MFP-A)		(no suitability study scheduled)
Acres recommended not suitable for designation	North:	160	160	0			
	South:	752	752	0			

* UT-050-233 is in Wayne County, Richfield District.

OWNERSHIP OF LANDS WITHIN BOUNDARIES OF WILDERNESS STUDY AREA (1981)

Area	Gross Total Acres	Public (BLM Lands	State Lands	Private Lands
Link Flat ISA	912	912	0	0
UT-060-007	163,49-	150,930	12,480	12,480
UT-060-025	25,330	24,050	1,280	80
UT-050-233	---	68,160	---	---

LINK FLATS NATURAL AREA

INTRODUCTION

The Link Flats Natural Area was formally designated as an ISA by the BLM in accordance with the Federal Land Policy and Management Act (FLPMA). The Link Flats Instant Study Area (ISA) was inventoried in 1979, studied, and found to be nonsuitable for wilderness designation. This recommendation was documented in a Wilderness Report dated March 21, 1980, which was prepared following guidance given in OAD 79-40. The nonsuitable recommendation was reported in the Federal Register on May 5, 1980 and was subsequently protested as reported in the Federal Register on June 18, 1980. The earlier Wilderness Report has been revised and expanded in accordance with guidance given in OAD 79-40, Changes 1 and 2.

RECOMMENDATION

The Bureau of Land Management recommends to the Secretary of the Interior that Congress not designate the Link Flats Natural Area (Link Flats Instant Study Area) as wilderness. The area has been inventoried and studied in accordance with the provisions of FLPMA (P.L. 94-579) and was found not to possess wilderness characteristics as described in the Wilderness Act (P.L. 88-577). The area is not suitable for wilderness designation and should be released from interim management restrictions applicable to lands under wilderness review.

Samuel R. Romney — Area Manager, San Rafael Resource Area — 12/1/81 — Date

Kenneth V. Rhea — District Manager, Moab District — 12/1/81 — Date

Richard D. Robinson — State Director, Utah — 1/8/82 — Date

Director, Bureau of Land Management — Date

LINK FLATS NATURAL AREA

RECOMMENDATION
SUMMARY STATEMENT OF REASONS FOR THE RECOMMENDATION

Review for Wilderness Characteristics: By itself, the ISA was found not to possess the primary wilderness characteristics of size, naturalness, and outstanding opportunities for solitude or primitive and unconfined recreation. The ISA was found to contain some supplemental values (wild horse range, scenic values). When considered with the contiguous roadless areas, the ISA and the adjacent areas meet size requirements but lack naturalness and outstanding opportunities for solitude or primitive and unconfined recreation.

Size: The ISA contains 912 acres of BLM-administered public lands (originally reported as 792 acres). This is less than the 5,000 acre requirement.

Naturalness: The ISA contains approximately 4 miles or roads (one of which bisects the ISA), 1 mile of travelled way, 2 miles of visible wheel tracks (probably associated with claim assessment work), and a stock reservoir. The ISA has lost its natural character.

Solitude: The lack of significant topographic or vegetative screening within the ISA, plus its configuration, makes it difficult to avoid sights and sounds of others within the unit. The ISA lacks outstanding opportunities for solitude.

Primitive and Unconfined Recreation: The level to rolling topography of the ISA and absence of focal features do not contribute either to outstanding opportunities for one type of primitive recreation or to a diverse recreational spectrum. The configuration of the ISA further limits opportunities present. The ISA does not contain outstanding opportunities for primitive and unconfined recreation.

Supplemental Values: The ISA possesses supplemental values related to a wild horse range and some scenic values. The Natural Area was established to protect an association of plants that was thought to be ungrazed. These species are still present but the association does not appear to be ungrazed.

Contiguous Areas: The ISA is contiguous with two BLM roadless areas. One is a 24,050-acre parcel to the north and the other is a 219,090-acre parcel to the south. These are separated by a road running through the ISA. While each of these two areas contain a WSA identified during the Intensive Inventory, neither WSA lies next to the ISA and both differ in character from the ISA. Areas adjacent to the ISA were determined not to possess wilderness characteristics. Consideration of contiguous areas eliminates problems associated with the size and configuration of the ISA. However, the adjacent areas do not possess outstanding opportunities for solitude or primitive and unconfined recreation, and in some cases lack naturalness. Contiguous areas enhance scenic supplemental values.

Economic and Social Impacts: If Link Flats is not designated as a wilderness area, there will not be any significant impact on socioeconomic values. This conclusion was reached after considering the ISA's potential for affecting the economy and social environment of the area. The small area is used for two basic economic activities, livestock grazing and mineral exploration access. Its social values are associated with its potential for providing recreation and livelihood for a limited number of people. The overall impact on the economy and social values will not be significant if the recommended action is taken.

Long-Term and Short-Term Effects: Long-term and short-term effects of the recommendation are assumed to be negligible. The area would remain at status quo with some grazing, mineral exploration access, and motorized recreation uses continuing. The Natural Area is segregated from mineral entry and surface use or occupancy. The short-term effect would be to release the area from Interim Management Policy (IMP) restrictions now applicable, although activities within the area are minimal.

Present uses include grazing, access for mineral exploration, and motorized recreational vehicle use. No hiking or camping uses are presently known to exist. Of the present uses, motorized vehicle access and recreational use would be incompatible with wilderness designation, while grazing at 1976 levels would be compatible.

Options Foregone: If the recommendation is adopted and the ISA is not designated as a wilderness area, wilderness management options would be foregone. Other options foregone would be management practices dedicated to wilderness enhancement and preservation. The ISA currently enjoys a measure of protection as a Natural Area; this would not be changed by the recommendation. Activities allowed would be managed to prevent unnecessary and undue degradation.

Recommendation and Study Area Suitability: The ISA was inventoried for wilderness characteristics as provided in the Wilderness Inventory Handbook and studied in accordance with OAD 79-40, 79-40 Changes 1 and 2. The ISA was found to lack the wilderness characteristics of size, when considered on its own, and of naturalness

and outstanding opportunities for solitude or primitive and unconfined recreation when considered either on its own or in conjunction with the contiguous roadless areas.

State and local governments were informed of the inventory and the proposed nonsuitability recommendation for the Link Flats ISA; no comments were provided by these agencies. The State of Utah did respond to the Intensive Inventory with generalized concurrence except in certain cases; Link Flats ISA was not mentioned (letter dated June 30, 1980, signed by Governor Matheson). It is problematic as to whether this can be considered applicable to Link Flats ISA. The Uintah Basin Association of Local Governments, located approximately 90 miles from Emery County in Roosevelt, Utah; did send a supporting comment during the Link Flats comment period. Emery County, the local government, is a member of a different association and did not respond.

The ISA does not contain significant resource values. The Natural Area designation was meant to protect an association of plants which was thought to be ungrazed. It is doubtful that the area was legally designated; it appeared on a list of Natural Areas without going through a formal study and designation process. It has since been determined that the plant association present has been continually grazed for decades by domestic cattle and wild horses. The area has no other resource values of significance. Correspondence with the State Historic Preservation Officer documenting "no effect" is on file in accordance with 36 CFR 800.

The Link Flats ISA is contiguous with two other BLM wilderness inventory units in Emery County: UT-060-007 and UT-060-025. UT-060-007 is contiguous with UT-050-233 in Wayne County, Richfield District. Units 007 and 233 were subject to an accelerated inventory as part of the Intermountain Power Project (IPP) study in 1978 and 1979, and the Muddy Creek WSA (31,360 acres) was identified. The inventory results on 007 and 233 have been appealed to the Interior Board of Land Appeals. UT-060-025 went through the regular inventory in 1979 and 1980 and the Devil's Canyon WSA (9,610 acres) was identified. Neither the Muddy Creek WSA nor the Devil's Canyon WSA is adjacent to the ISA. Both WSAs differ from the ISA in character. It has been determined that neither of the WSAs influence the Link Flats ISA.

The ISA is being managed under IMP restrictions while under wilderness review. IMP management will continue so long as the protest on the ISA and the related appeal on the adjacent roadless area are in effect. The ISA was segregated from mineral entry and surface use and occupancy in 1968. The nonsuitability recommendation, if implemented, would not change this status.

BACKGROUND INFORMATION

Previous Designation: Link Flats was identified as a potential Research Natural Area in 1964 to protect a reported ungrazed association of plants. Although discussed for several years as a potential Natural area, it apparently was never formally designated. However, Link Flats did appear on an official listing of Natural Areas. On October 29, 1968 it was segregated from entry or location under the general mining laws, and surface use and occupancy under the mineral leasing laws by official notice in the Federal Register (which referenced it as "Link Flats Natural Area"). The next year the District Manager informed the State Director that the area did in fact have a history of grazing use and recommended the Natural Area listing be discontinued because Link Flats did not qualify. This recommendation was never implemented.

It is not clear what the exact extent of the Natural Area was intended to be. The total acreage mentioned for the Natural Area in 1964 was 960 acres of vacant public lands and 350 acres of State lands, Sections 28 through 32, T23S, R9E, SLM, but the exact area was unspecified. The only legal description published for the Natural Area was in the 1968 segregation notice in the Federal Register:

T23S, R9E,
Sec. 29, S1/2 NE1/4, SE1/4, E1/2 SW1/4;
Sec. 30, SE1/4 NW1/4, E1/2 SW1/4;
Sec. 31, W1/2 NW1/4, S1/2 NE1/4, S1/2;
792 acres

There appears to be some error in this legal description. The acreage noted totals 912 acres, not 792 acres as stated. The W1/2 NW1/4, Section 31 is not part of the Flats, but rather contains a steep bluff; the E1/2 of the NW1/4 is totally on the Flats but is not included in the legal description. When comparing the legal description with the physiographic boundaries of the Flats, about 180 acres of the described area is not on the Flats and about 220 acres of the Flats on BLM lands is not included in the legal description. There is no mention of any area in Section 28 as there was in the 1964 notation of the area.

In sum, the status of Link Flats as a bona fide Natural Area is questionable. First, the Flats were never properly studied nor designated as a Natural Area; second, the original rationale for designation appears flawed; third, the legal description as published in the Federal Register appears to be in error; and fourth, there is a

discrepancy between the actual area of Link Flats and the area described.

Significant Resource Data:

Rare Plants: Link Flats was recommended as a research area to protect and study a reported ungrazed association of plants. The plants themselves are not rare; it was the supposed ungrazed association that was noteworthy. It is not clear what the exact association was. A 1964 BLM memorandum identifies the association as Stipa comata and Atriplex canescens (needle and thread grass and four wing saltbush) with minor amounts of Orizopsis hymenoides and Eurotia lanata (Indian ricegrass and winterfat). Correspondence from the University of Utah dated 1966 refers to "a rare plant community" containing blue gramma, ricegrass, and needle and thread grass.

Link Flats was apparently not protected from grazing by wild or domestic stock before or after the "ungrazed" association was reported. It is questionable as to whether Link Flats represented an ungrazed situation in the mid-1960s. The District Manager stated in 1969 the area was not "ungrazed". While all the species mentioned above can still be found in the ISA, they do not represent an extensive community; none is a rare, threatened or endangered species. Either of the associations mentioned might be considered noteworthy if ungrazed. The associations do occur in other areas of the State.

Grazing: The ISA is part of the small Globe Link Allotment (7,250 acres) which has a history of use dating at least to the 1950s. In 1981, 900 AUMs for cattle and 4 AUMs for horses were allowed. The ISA has a small stock reservoir constructed prior to 1974.

Wildlife: Wildlife populations are not significant. There are mule deer in the vicinity. A wild horse herd of approximately 25 head frequents the general area and hoof prints and sign are very obvious within the ISA.

Geology: Surface stratigraphy of the ISA is predominantly the Kayenta sandstone formation (the flats) with overlying bluffs of Navajo sandstone. No geologic features of note are present within the ISA.

Energy and Critical Minerals: The San Rafael Swell has documented mineral potential but there are no proved reserves within the ISA. Energy minerals in the Swell include uranium, oil and gas; critical minerals include copper, vanadium, selenium, gypsum, silver, and molybdenum.

Uranium ore was produced from the Lucky Strike Mine, one-quarter mile south of the ISA, starting in 1949. Ore deposits were mined from the Mossback member of the Moenkopi formation. The main deposit is now considered mined out although assessment work is kept current, indicating some speculative potential. Tunnels from the mine extend under the ISA and most surface impacts within the ISA are probably connected with exploration and development for the mine. File documents indicate drilling took place on Link Flats in 1971 and 1974 (not necessarily within the ISA), probably for mine development. Abandoned drill sites occur on State lands adjacent to the ISA; access is across the ISA. Oil and gas exploration in the San Rafael Swell began in the 1910s and continues to the present. In the early 1960s, dry holes were drilled about 2 miles north and south of the ISA. There are no producing wells within 10 miles of the ISA.

Copper was discovered at the Copper Globe Mine, 1 mile northeast of the ISA, prior to 1900 and was produced during World War I and World War II. Copper ore is found in the Kayenta formation. The mine is still worked for jewelry metal and rock specimens. The deposit is apparently localized and does not extend into the ISA. Uranium ores in the San Rafael Swell contain vanadium and selenium, but not in producible quantities. Gypsum deposits are located a few miles west of the ISA but the grade is not economically producible. Silver and molybdenum have also been found in the Swell.

Cultural: There are no known archaeological or historical sites on Link Flats, an inventory for minor sites has not been done. The State Historic Preservation Officer has concurred with BLM's findings of "no effect," in accordance with 36 CFR 800.

Description of Report Area: Link Flats lies in the San Rafael Swell, a breached anticline on the western edge of the Colorado Plateau physiographic province. Link Flats is one of a series of grassy flats falling between two major drainages, Devil's Canyon and Red's Canyon, which run to the southwest. Link Flats, Copper Globe Flats, and Justensen Flats are generally defined by pronounced sandstone bluffs to the northwest and are separated by pinyon-juniper desert woodlands.

LINK FLATS NATURAL AREA

The San Rafael Swell lies in Emery County in Eastern Utah. The county encompasses 4,442 square miles. Its population in 1981 was about 11,150. Interstate Highway 70 (I-70) cuts across the center of the Swell. The ISA is about 3.5 miles south of I-70. The Justensen Flats interchange, directly north of the ISA, is about 9 miles from the ISA by road. The nearest towns are Moore and Emery (about 18 and 20 miles northwest of the ISA). The town of Green River is about 40 miles east of the Justensen Flats interchange on I-70.

No lands of other Federal agencies are near the ISA. The ISA is contiguous with two larger BLM wilderness inventory units, UT-060-007/UT-050-233 and UT-060-025. Although both of these contain a WSA, neither were considered to be part of the influence area of the ISA due to differences in character and patterns of human imprints. The two larger roadless areas are separated by the road which bisects the ISA.

The larger unit lies to the south of the ISA. UT-060-007 has 150,930 acres, and the adjacent UT-050-233 in Wayne County has 68,160 acres (219,090 acres total). These units were inventoried as part of the accelerated IPP study following guidance given in a Washington Office memorandum dated August 15, 1978. As a result, the Muddy Creek WSA (31,360 acres) was designated in September 1979. The inventory results on UT-060-007/UT-050-233 were subsequently appealed by the Utah Chapter, Sierra Club (IBLA Docket No. 80-308, January 10, 1980). The appeal has not yet been considered by IBLA.

To the north, the ISA is contiguous with UT-060-025 (24,050 acres). As a result of the regular inventory process, the Devil's Canyon WSA (9,610 acres) was designated in November 1980.

The Muddy Creek and Devil's Canyon WSAs both differ from the ISA in character. Both WSAs encompass canyon systems of varied and challenging terrain, whereas the ISA lies on rolling, open, grassy flats. The ISA is completely separated from the Devil's Canyon WSA by human imprints. Several major imprints and State lands lie between the ISA and the Muddy Creek WSA. The ISA does not share the wilderness characteristics of naturalness and outstanding opportunities for solitude or primitive and unconfined recreation identified within the two WSAs.

Summary of Public Participation:

Description of Process: Public participation in the ISA study process within the Moab District began with public meetings held in April 1978, where the three ISAs within the district were identified. Public meetings were held in the summer of 1979 to discuss the District wilderness inventory. Public comments were invited but none were received pertaining to Link Flats.

At the completion of the Link Flats ISA intensive inventory, a formal 30-day public comment period was held starting January 17, 1980. No public meetings or hearings were held specific to the Link Flats ISA. The final decision to recommend the ISA to the Secretary as nonsuitable was announced in the Federal Register on May 5, 1980 and was subsequently protested by the Utah Chapter, Sierra Club. The protest was tied to the Sierra Club appeal on UT-060-007/UT-050-233. Decisions on both the current and the appeal are still pending.

Summary of Analysis of Comments: In response to the formal public comment period 11 letters were received.

	General	Specific	Total
Supporting BLM recommendation	5	0	5
Opposing BLM recommendation	2	3	5
No position	1	0	1
	8	3	11

Of the supportive general comments, one was from an oil company, and one was from a (non-local) association of local governments. The remaining five general comments were from individuals. Two of the three specific comments were from organized conservation groups and the other was from an individual. No State or local government agencies responded, although the State did send a letter of general concurrence with the wilderness inventory at the close of the Intensive Inventory, June 30, 1980. It is problematic as to whether this implies support of the BLM decision on Link Flats ISA.

General comments not in concurrence with BLM findings expressed concern with ISA review procedures. One letter expressed dissatisfaction with wilderness in general. Specific comments from organized groups reference the contiguous appeal (one letter stated "protested"). The individual respondent disagreed with BLM methodology and objected to separation of Link Flats ISA from adjacent areas.

A copy of all letters received for the ISA and the two adjacent inventory units (UT-060-007 and UT-060-025) has been placed in the Permanent Documentation File for the Link Flats ISA in accordance with the Wilderness Act.

WILDERNESS INTENSIVE INVENTORY
SUMMARY SHEET

I. LOCATION:

Inventory Unit Number: NA

Unit Name: LINK FLATS ISA

Resource Area: San Rafael Resource Area, Moab District, Utah

II. SUMMARY:

A. Results of wilderness characteristics analysis:

1. Does the unit meet any of the size requirements?	___Yes	_X_No
2. Does the unit appear to be natural?	___Yes	_X_No
3. Does the unit offer outstanding opportunities for solitude or a primitive and unconfined type of recreation?	___Yes	_X_No
4. Does the unit have supplemental values?	___Yes	_X_No

B. Resulting map:

Attach a map showing inventory unit, roads, other human imprints, area with a possibility of returning to a natural state, and recommended boundary of any wilderness study area (WSA).

III. RECOMMENDATION:

Check one:

___ Unit should be approved as a WSA.
_X_ Unit does not qualify for wilderness study.
___ A portion of the unit should be approved as a WSA for further study and reported to the President. The restrictions imposed by Section 603 of FLPMA will no longer apply to the remainder of the unit. (See map.)

IV. APPROVAL:

A. Resource Area Manager Samuel P. Lundy Date 11/16/80

B. District Manager S. Gene Day Date 1-21-80

C. State Director _____ Date _____

White Rock Range

Wilderness Study Area

RECOMMENDED FOR WILDERNESS -

RECOMMENDED FOR NONWILDERNESS - NONE

LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS - NONE

SPLIT ESTATE - NONE

STATE - NONE

PRIVATE - NONE

N

1 0 1 2 3 4 5

MILES

White Rock Range Proposal

NV-040-202
March 1990

WHITE ROCK RANGE WILDERNESS STUDY AREA

1. THE STUDY AREA: 24,065 acres

The White Rock Range Wilderness Study Area (WSA) (NV-040-202) is mostly located in Lincoln County in the east-central portion of Nevada along the Nevada-Utah border. A portion of the WSA lies within the State of Utah on the western boundaries of Beaver and Iron Counties. The nearest communities are Ursine Nevada (population 100) about 15 miles to the southwest; and Pioche, Nevada (population 800) about 25 miles to the southwest. The entire WSA is comprised of public land with no private inholding (see Table 1). The boundaries of the White Rock Range WSA are formed on the southwest by a fenceline, on the west by the White Rock Wash jeep trail, on the north by two jeep trails, a legal boundary, and a parcel of Utah State land. The southern and eastern boundaries are defined by the Reeds Cabin Summit Road.

The WSA is made up of gentle mountain terrain with associated foothills and benchlands. The broad, north-south trending range is dissected by numerous side canyons and drainages. Elevations range from over 9,000 feet to about 6,100 feet. Most of the WSA is forested with juniper, pinyon, and fir woodland, varying with elevation. The north end, however, exhibits some interesting differences, including high open sagebrush country, ponderosa pines, white fir, aspen and two high (but intermittent) mountain lakes. Interspersed throughout the area are numerous small grassy meadows where springs support riparian vegetation.

TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	24,065
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	24,065
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	24,065
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Split-Estate (outside the WSA)	0
Total BLM land recommended for wilderness	24,065
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	0
Split-Estate	0
Total BLM land not recommended for wilderness	0
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

UTAH	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	3,820
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	3,820
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	3,820
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Split-Estate (outside the WSA)	0
Total BLM land recommended for wilderness	3,820
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	0
Split-Estate	0
Total BLM land not recommended for wilderness	0
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

NEVADA	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	20,245
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	20,245
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	20,245
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Split-Estate (outside the WSA)	0
Total BLM land recommended for wilderness	20,245
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	0
Split-Estate	0
Total BLM land not recommended for wilderness	0
In-holdings (State, Private)	0

Source: BLM File Data

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA), and was included in the Schell Management Framework Plan Amendment/Environmental Impact Statement (EIS). The Final Wilderness EIS was filed in September 1987. There were two alternatives analyzed in the EIS; an all wilderness alternative and a no wilderness alternative.

2. RECOMMENDATION AND RATIONALE:
24,065 acres
(recommended for wilderness)
0 acres
(recommended for nonwilderness)

The recommendation for the White Rock Range WSA is to designate the entire area as wilderness (Maps 1 and 2). This is considered to be the environmentally preferable alternative as it would result in the least change from the natural environment over the long term.

The White Rock Range was recommended for wilderness because of its high degree of naturalness and solitude, the ease of management, and the lack of conflicts.

The White Rock Range WSA is part of a fairly gentle, well forested mountain range. Visitors have frequently explored this remote area and few signs of man can be found. The pristine nature of the WSA is apparent throughout. On the northern end, the ridge flattens into a high, broad windswept table interrupted only by pockets of aspen and fir. Large aspen trees, twisted and contorted by wind and weather provide for interesting photo opportunities. Volcanic boulders, colorful with splotches of lichens are strewn across the table. Wet meadows lie hidden in the mountains and two ephemeral lakes lie along the WSA's northern boundary. Signs of elk and deer are abundant.

Although hidden in many places by vegetation, the volcanic nature of the range is often apparent. Islands of strangely eroded volcanic ash and columnar peaks thrust out of and tower over the sea of

green trees. Here, visitors can climb out of the trees and get an expansive view of surrounding basins and ranges.

Solitude is the primary wilderness value here. Heavy tree cover, combined with jumbled mountain topography, results in outstanding opportunities for solitude. Visitors can vanish into an untouched land where man and his works are rarely seen.

The White Rock Range is capable of sustaining a relatively large number of visitors who may experience solitude without interference from each other. The area is notable for its large number of springs which enhance opportunities for backpacking, camping, and hiking. The relatively large amount of riparian acreage supported by these provides habitat for a large variety of animal species and this diversity of flora and fauna provides good opportunities for nature study.

The WSA's blocky configuration is ideal for management and requires no boundary modification. While easy to walk through, the close placement of the trees and the very rocky nature of the terrain almost totally excludes cross country vehicle travel.

Also leading to the wilderness recommendation is the fact that conflicts with other resource uses of this WSA are low. The USGS/BOM mineral survey showed the area to have low potential for metallic minerals, oil, gas, and geothermal resources. Only one mining claim is located along the southern boundary of the WSA. No development is anticipated in the future. There are no range projects within the WSA although proposals for spring developments and vegetative treatments are expected. Some spring developments would likely be allowed as well as some prescribed burns or wild fires. Grazing use of the WSA would continue. Although the White Rock Range has good potential for commercial woodland product harvest, ample areas exist outside of the WSA to meet foreseeable demand.

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

A. Naturalness: The pristine nature of the remote White Rock Range WSA is apparent throughout. Visitors have infrequently explored this little known area and few signs of man can be found. The only unnatural features are five ways, none of which are more than a mile in length, and all but one of which are well screened by dense forest cover.

B. Solitude: The opportunities for solitude in this WSA are outstanding. There occur no sights and sounds of man within the WSA. The WSA's vegetative screening is exceptional, provided by an almost uninterrupted forest of pinyon and juniper, with a scattering of other conifers. This combined with good topographic screening provided by the mountains themselves, as well as a good unit configuration, allow for outstanding solitude opportunities just about anywhere within the area. The WSA would be capable of sustaining relatively high use (much higher than now occurs) while still providing solitude for anyone who seeks it.

C. Primitive and Unconfined Recreation: Opportunities for recreation were found to be good but less than outstanding during the wilderness inventory. Current recreational opportunities such as hiking, camping, trapping, deer hunting, blue grouse hunting, and rockhounding are found throughout the WSA. About 18,000 acres of the area are crucial deer summer range, and wildlife sightings, especially deer and elk are common.

In addition, the White Rock Range is notable for its large number of springs which enhance opportunities for backpacking, camping, and hiking. The relatively large amount of riparian acreage supported by these springs provides habitat for numerous animal species. This diversity of flora and fauna provides good opportunities for nature study.

While these are not an extraordinary diversity of opportunities, nor is any one of them considered outstanding; they are nonetheless enjoyable, each for different reasons, and all because they exist in an unspoiled, natural setting far away from the influence of man.

D. Special Features: the original wilderness inventory did not list any special features. After completion of the inventory however, an elk herd of about 20 to 30 animals set up residence. The elk use the northern portion of the WSA and seeing these animal enhances the visitor's wilderness experience. They are now considered a special feature of the WSA.

Diversity in the National Wilderness Preservation System

A. Expanding the Diversity of Natural Systems and Features as Represented by Ecosystems

White Rock Range WSA is in the Intermountain Sagebrush Province (Bailey-Kuchler) and Great Basin Sagebrush (3,984 acres) and Juniper-Pinyon Woodland (20,081 acres) are the predominant ecosystems. Additionally, scattered throughout the WSA are large stands of white fir and aspen (see Table 2).

B. Assessing the Opportunities for Solitude or Primitive Recreation within a Days Driving Time (5 Hours) of Major Population Centers

Designation of the White Rock Range WSA as wilderness would expand the opportunities for solitude and recreation in a designated wilderness area for one major population center, Las Vegas, Nevada. The White Rock Range WSA lies about 3 hours north of Las Vegas, and is accessible from there by paved highways and dirt roads. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a 5-hour drive of the Las Vegas population center.

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	**AREAS**	**ACRES**	**AREAS**	**ACRES**
NATIONWIDE (INTERMOUNTAIN SAGEBRUSH PROVINCE)				
Juniper-Pinyon Woodland	16	362,556	77	2,250,026
Great Basin Sagebrush	7	104,407	60	1,088,540
NEVADA (INTERMOUNTAIN SAGEBRUSH PROVINCE)				
Juniper-Pinyon Woodland	10	268,900	45	1,645,628
Great Basin Sagebrush	7	104,407	38	847,326

Source: BLM File Data.

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

	NWPS AREAS		OTHER BLM STUDIES	
POPULATION CENTERS	**AREAS**	**ACRES**	**AREAS**	**ACRES**
Las Vegas, Nevada	55	4,006,293	311	11,186,463

Source: BLM File Data.

C. Balancing the Geographic Distribution of Wilderness Areas

The White Rock Range WSA would contribute to the geographic distribution of the areas within the National Wilderness Preservation System in Nevada.

Designation of this WSA would provide the public with wilderness opportunities in another portion of the state.

Manageability (The area must be capable of being effectively managed to preserve its wilderness character.)

The White Rock Range WSA is easily manageable as wilderness. The boundaries of the unit are easily found on the ground. There are no private inholdings in the area, no mineral leases or mining claims where development seems likely with designation, and no disturbing outside sights or sounds. Cherry-stemmed routes are very few, very short, and are well screened by tree cover.

Energy and Mineral Resource Values

The U.S. Geological Survey and the Bureau of Mines prepared a mineral assessment report for the White Rock Range WSA in 1986, (U.S. Geological Survey Bulletin 1728-B).

The report indicates that the White Rock Range WSA has no identified mineral resources and has low mineral resource potential for metals. This assessment is based on extensive geochemical and rock chip samples taken throughout the unit as well as detailed study of known mineral occurrences in the region. The USGS/BOM assessment is supported by the fact that only one mining claim has been staked within the WSA in the past and no mining or exploration activity has occurred. Although the claim is located near the Stateline Mining District, no mineralized veins or outcrops were found within the WSA boundaries during the study.

The report states that potential for oil and gas, coal, and geothermal energy resources within the unit is low due to the lack of host rocks or structures favorable for their occurrence.

The 1983 GEM study differs from the recent evaluation of the USGS/BOM report. The GEM study rated the WSA as having moderate potential for mineral resources, with a low certainty factor.

The GEM rating was derived largely from extrapolation of known mineral occurrences to the south of the WSA as well as mineral occurrences contiguous with two other WSAs included in the study located to the west of the White Rock Range.

Impacts on Resources

The comparative impacts table (Table 4) summarizes the effects on pertinent resources for all the alternatives considered including designation or nondesignation of the entire area as wilderness.

Local Social and Economic Considerations

Designation of the White Rock Range WSA as wilderness would not accrue any significant adverse or beneficial impacts to existing income and employment in the area. Currently, livestock grazing and limited forest product harvesting are the only employing industries operating in the area that utilize lands within the WSA. Wilderness designation would not affect current grazing on the WSA. Commercial forest product harvesting would be disallowed in wilderness but many other equally productive sites exist in the vicinity to supply the demand.

Summary of WSA-Specific Public Comments

During the formal inventory phase, no comments were received on this unit which raised issues to be analyzed during the study phase.

There were a total of 35 comments received during the study process which mentioned the White Rock Range WSA. Of these, 22 supported the unit for wilderness designation citing the solitude in the dense forests, archaeological sites, spotted bats and lack of conflicts. The Nevada Division of State Parks supports the unit for wilderness. Thirteen comments were received opposing wilderness designation stating they were generally opposed to wilderness, the unit had some favorability for gold, that it contained roads, intrusions and private water rights. The Nevada Departments of Wildlife and Agriculture opposed wilderness designation.

During formal public review of the Draft EIS and Wilderness Technical Report held between April 8 to July 8, 1983, a total of 10 comments were received specifically addressing the White Rock Range WSA. Of those, six were written comments and four were oral testimonies. In general, six commenters supported wilderness designation for all or part of the WSA and three commenters supported no wilderness for the WSA and one commenter took no position on designation.

Comments stated the unit met the wilderness criteria and had unusually low resource conflicts. Specific comments opposing wilderness designation stated there were private lands and water holdings within the unit, current recreational access routes, and that options for wildlife habitat improvement should remain open.

The Bureau of Indian Affairs, Bureau of Mines, Bureau of Reclamation, Fish and Wildlife Service, Environmental Protection Agency, National Park Service, and the Department of the Air Force all commented on the Draft EIS. None of these agencies had a jurisdictional conflict with either of the alternatives. The Governor of Nevada as well as the State Divisions of State Lands, Parks, Forestry, and Historic Preservation and Archaeology supported a no wilderness recommendation for the White Rock Range WSA, stating the unit "lacks really positive and unique wilderness values." The Nevada Department of Wildlife opposes wilderness designation because of current recreational access routes and to keep management options open for range improvements. The Lincoln County Conservation District opposes wilderness designation stating it "has several old roads and has high potential for vegetation improvements" for wildlife and livestock.

One letter was received on the Final EIS from the Environmental Protection Agency which supported the BLM's wilderness recommendation.

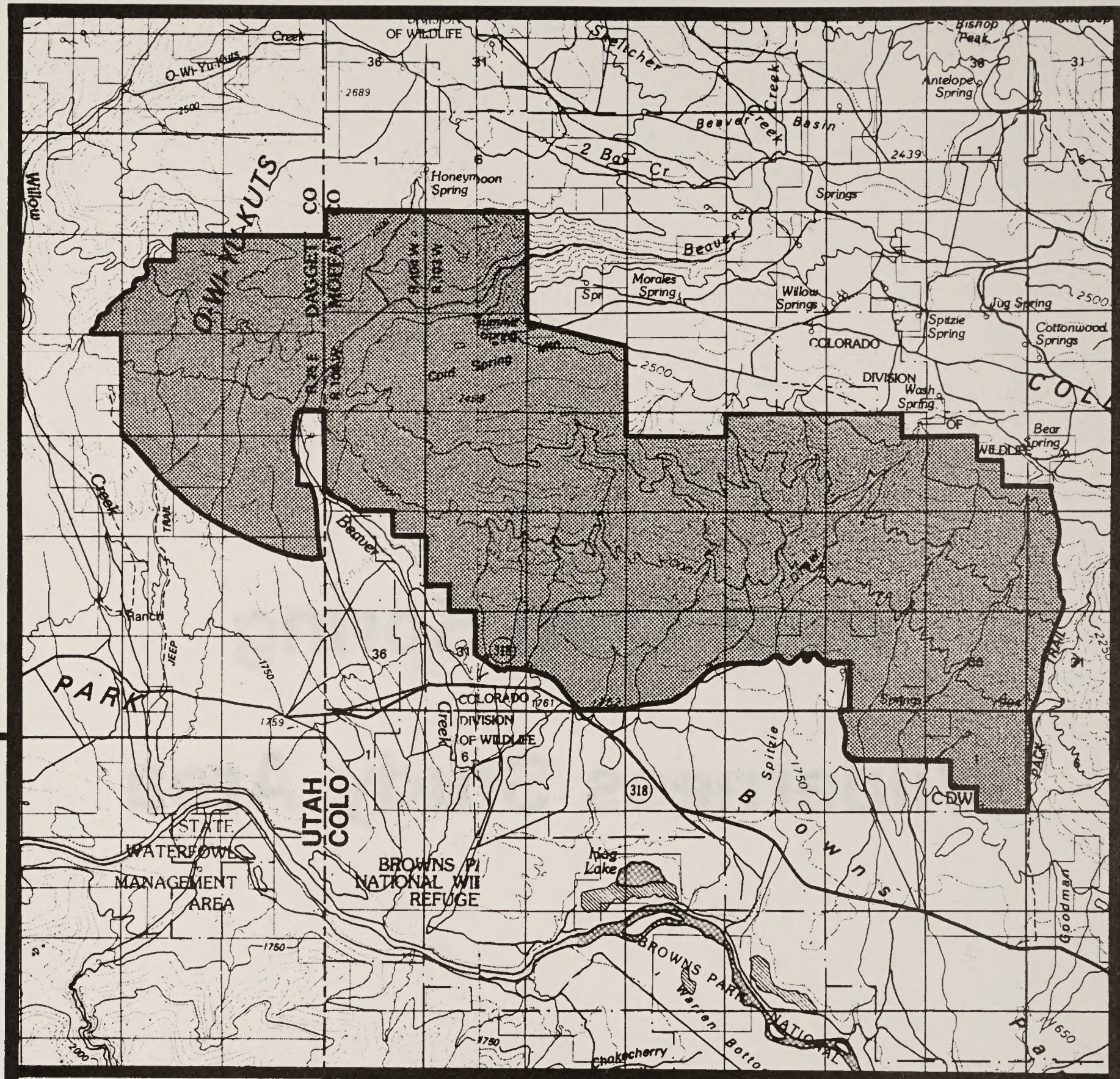
TABLE 4
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Issue Topics	Proposed Action (All Wilderness)	No Wilderness
Impacts on Wilderness Values	The impact of designation of the White Rock Range WSA as wilderness would be to preserve the excellent opportunities for solitude, important scenic values, elk habitat, and the pristine character of the unit.	Long-term impacts on wilderness qualities would occur on approximately 1,950 acres mostly from vegetation removal. These disturbances would become more natural appearing with the passage of time. The remaining 22,100 acres not designated would retain their wilderness values.
Impacts on Exploration and Development of Mineral Resources	Exploration and development of mineral resources would be foregone on all unclaimed lands within the WSA. 5 acres of surface disturbing exploration would be eliminated due to the lack of valid and existing claims.	All lands within the WSA would remain open to mineral entry. There would be no impacts on the exploration or development of mineral resources. Favorability for the discovery of mineral resources is low in the WSA and development is not expected to take place, regardless of the wilderness decision.
Impacts on Exploration and Development of Energy Resources	All lands within the WSA would be withdrawn from mineral leasing, exploration and development.	All lands within the WSA would remain open to mineral leasing. There would be no impacts on the exploration for or development of energy resources. Favorability for discovery of mineral resources is considered low within the WSA and development of energy resources is not expected to take place, regardless of wilderness designation.
Impacts on Grazing Facility Maintenance and Construction	There would be no impacts on grazing facility maintenance. Costs would be slightly higher for new project construction and one 3-mile section of pipeline would not be allowed. The absence of the pipeline would have a negligible affect on grazing.	There would be no impacts on grazing facility maintenance and construction within the White Rock Range WSA.
Impacts on Woodland Product Harvest	The harvest of 7,440 cords of fuelwood, 1,760 Christmas trees every 6 years, and commercial pine nut sales would be foregone. This would be a minor impact since supplies outside the WSA could satisfy demand.	There would be no impacts on woodland product harvest.
Impacts on Recreational Off-Road Use	Recreational ORV use of fewer than 100 visitor days annually would be displaced. The impacts of shifting this use to other public lands would be negligible.	There would be no impact on recreational ORV use.

Impacts on Vegetation Manipulation	Prescribed burns and limited suppression of wildfires would be used to return the WSA to a more natural condition. Vegetation conversions using these methods would take somewhat longer to accomplish.	There would be no impacts on proposed vegetation conversions.

West Cold Spring

Wilderness Study Area



RECOMMENDED FOR WILDERNESS (NONE)

RECOMMENDED FOR NONWILDERNESS

LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS (NONE)

SPLIT ESTATE (NONE)

STATE (NONE)

PRIVATE (NONE)

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West Cold Spring WSA
Proposal
CO-010-208 and UT-080-103

January 1991

WEST COLD SPRING WILDERNESS STUDY AREA

THE STUDY AREA: 17,682 acres

The West Cold Spring WSA (CO-010-208 and UT-080-103) is located in Moffat County, Colorado, and Dagget County, Utah, approximately 65 miles northwest of Maybell, Colorado. The WSA includes 17,682 acres of BLM lands (14,482 acres in Colorado and 3,200 acres in Utah). There are no private inholdings within the WSA (see Table 1). Several sections and parcels of Colorado and Utah State lands adjoin the WSA. The WSA is bounded on the north by undeveloped State and BLM lands, on the east by the Matt trail (which is closed to motorized travel); on the south by a way through undeveloped BLM lands, Browns Park National Wildlife Refuge, and two small parcels of private land. One of these parcels is about 120 acres in size, while the other parcel is about 80 acres in size. The 120-acre parcel is bounded on three sides by the WSA, while the 80-acre parcel is bounded on two sides. In Utah the area is bounded by an undefined southern boundary as well as undeveloped State, private, and BLM lands. The WSA is shown on the map.

This WSA consists primarily of the western portion of the rugged, south-facing slopes of Cold Spring Mountain. This area is characterized by deep draws and canyons that have been cut through the O-Wi-Yu-Kuts Plateau, forming a series of plateaus and ridges along the northern margins of the Green River Valley known as Browns Park. Cold Spring Mountain provides significant background viewshed from the valley floor and the Green River in Browns Park.

TABLE 1
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	17,682
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	17,682
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	17,682
Split-Estate	0
Total BLM land not recommended for wilderness	17,682
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

UTAH	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	3,200
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	3,200
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	3,200
Split-Estate	0
Total BLM land not recommended for wilderness	3,200
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

COLORADO	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	14,482
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	14,482
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	14,482
Split-Estate	0
Total BLM land not recommended for wilderness	14,482
In-holdings (State, Private)	0

Source: BLM File Data

The WSA appears to be in a transition zone between the Wyoming Basin Province ecoregion to the north and Rocky Mountain Forest Province ecoregion to the south. Diverse vegetation communities cover the area consisting of sagebrush steppe and saltbush/greasewood in the low elevations to dense pinyon-juniper woodlands which dominate the area, to large old growth mountain mahogany and oak scrub communities at higher elevations. Limber pine, lodgepole pine, Douglas fir, and aspen trees are scattered throughout the higher elevations with sagebrush steppe occurring again with associated species. Dense riparian vegetation lines Beaver Creek Canyon and Spitzie Draw adding botanic diversity to this WSA. The dark green color of the pinyon-juniper woodlands contrasts with the deep red sandstone rock outcrops found throughout the WSA. A fungi lichen ecotone on the rock outcrops adds interest to the area.

The area provides habitat for diverse wildlife species including elk, deer, antelope, bighorn sheep, mountain lion, coyote, beaver, raptors, and numerous other birds, mammals reptiles, and amphibians. The area is managed as part of the Colorado Division of Wildlife Class II High Priority Fishery Resource with probable occurrence of and documented past occurrence of State or Federal threatened species. Beaver Creek presently is inhabited by Yellowstone cutthroat trout, brook trout, and brown trout. The aquatic and riparian habitat is presently in above average condition.

The WSA is habitat for Oenothera acutissima (acute leaf evening primrose), a candidate for listing as a threatened or endangered plant species. The bald eagle and peregrine falcon are endangered species which may inhabit the area, however, no formal surveys were conducted to determine the presence of threatened or endangered animals or plants.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Craig District Wilderness Final

Environmental Impact Statement (EIS) published November 5, 1990. Three alternatives were analyzed in the EIS; all wilderness (17,682 acres recommended for wilderness designation), boundary adjustment alternative (19,122 acres recommended for wilderness designation, the result of adding 1,44 acres of BLM lands outside the WSA boundary), and no wilderness (which is the recommendation of this report).

RECOMMENDATION AND RATIONALE

0 acres
(recommended for wilderness)

17,682 acres
(recommended for nonwilderness)

West Cold Spring WSA is not recommended for designation as wilderness. The area would be released for uses other than wilderness. The boundary adjustment alternative, which recommends 19,122 acres for wilderness designation, is the environmentally preferable alternative since its implementation would result in the least change to the natural environment over the long term and provides the best opportunity to protect and preserve the outstanding wilderness values of the western end of Cold Spring Mountain.

During the study phase of the wilderness review process, BLM decided that the area would be best managed in a manner similar to the adjoining BLM lands. For the Colorado portion of the WSA, the Little Snake Resource Management Plan (RMP), June 1989, outlines management of the area. The management objectives for the area are to maintain and improve the quality of: (1) the habitat for elk, mule deer, and bighorn sheep; (2) the fisheries in Beaver Creek; and (3) the recreational opportunities (primarily hunting use). Wildlife habitat management plans and wildlife habitat improvement projects would be developed and implemented to achieve these management objectives for the area. The area would be open to oil and gas and other mineral leasing or claims and development of any mineral resource. Livestock grazing would continue and rangeland improvement projects or vegetation treatments may be authorized. Forest or woodland products may be harvested and realty actions such as rights-of-way, leases, and permits may occur. Recreation use would be allowed on existing roads and trails on about three-fourths of the WSA. About one-fourth of the WSA would be open to off-road vehicle (ORV) use with no restrictions.

Although BLM recognizes the areas wilderness values, the resource values determined to be most important (livestock grazing, mineral development, and wildlife habitat improvement projects) could be best managed as outlined in the Little Snake RMP. Over the long term, the wilderness values could be irretrievably lost. Although there are no special stipulations to protect the wilderness values, any development must be consistent with the management objectives for the area. The Utah portion of the WSA would be under multiple use management with no special stipulations to protect wilderness values.

CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

Naturalness

The West Cold Spring WSA is predominantly natural in character with negligible human imprints. The WSA consists primarily of the western portion of the rugged, steep, south-facing slopes of Cold Spring Mountain. The mountain trends from west to east-southeast. Most of the area is characterized by steep draws and canyons which have cut the O-Wi-Yu-Kuts Plateau forming a series of plateaus and ridges along the northern margin of the Green River Valley known as Browns Park. Cold Spring Mountain provides a significant background viewshed from the valley floor and the Green River in Browns Park. The WSA ranges in elevation from 5,800 feet in the southern foothills to over 8,500 feet on the northwestern boundary.

The WSA appears to be in a transition zone between the Wyoming Basin Province ecoregion to the north and the Rocky Mountain Province ecoregion to the south. Diverse vegetative communities cover the WSA consisting of sagebrush steppe, and saltbush/greasewood in the lower elevations to dense old growth pinyon-juniper woodlands, which dominate the WSA, to large old growth mountain mahogany and oakscrub and associated species at higher elevations. Limber pine, lodgepole pine, Douglas fir, and aspen trees are scattered throughout the higher elevations with sagebrush steppe and associated species occurring again. Dense riparian vegetation consisting of cottonwood, willow, boxelder, and associated species are found along Beaver Creek Canyon and in Spitzie Draw. A colorful fungi lichen ecotone is found on the numerous red rock outcrops and

rounds out the botanic diversity found throughout the area which complements the visual resource and adds interest to the area.

The areas diversity and unroaded character makes it ideal habitat for numerous wildlife species including elk, mule deer, pronghorn antelope, mountain lion, bighorn sheep, raptors, and numerous other birds, mammals, reptiles, and amphibians. Beaver Creek supports an excellent trout fishery and aquatic and riparian habitat is presently in above average condition. Bald eagle and peregrine falcon are potential inhabitants of the WSA. No formal surveys have been conducted to determine the presence of threatened or endangered animals or plants.

Minor imprints of humans within the WSA consist of 1 mile of fence, one water tank with pit, three developed springs, 1.25 miles of water pipeline, and a cattle trail the length of Beaver Creek Canyon. These imprints are scattered and natural revegetation and topography diminish the impact of these improvements making them substantially unnoticeable within the area.

Solitude

The rugged topography and dense vegetation in the WSA provides a setting which allows outstanding solitude experiences throughout the WSA. The deep, twisting Beaver Creek Canyon and Spitzie Draw create a secluded setting which isolates the visitor. Expansive vistas from the top of the O-Wi-Yu-Kuts Plateau look southward into Browns Park, the Diamond Breaks WSA, Dinosaur National Monument, and on clear days into the High Uinta Mountains in Utah. These views create the sense of vastness, open space, and isolation which provide truly outstanding opportunities to experience solitude.

Primitive and Unconfined Recreation

The West Cold Spring WSA offers opportunities for users to participate in and experience primitive and unconfined types of recreation activities which are considered to be outstanding. Activities include hiking, backpacking, fishing, hunting, horseback riding, wildlife viewing, and sightseeing within the large, remote and rugged terrain of Cold Spring Mountain. The size and blocked configuration of the area enhances the variety and number of places for high quality primitive types of recreation experiences and allows relatively unrestricted movement. The rugged terrain restricts travel to foot or horseback. The WSA is accessible year round from Browns Park.

Special Features

The area is known to possess historic and prehistoric cultural sites varying from Paleo-Indian to more modern Ute and Shoshone tribes. The WSA is also included within the Colorado Division of Wildlife's Cold Springs Quality Elk Management Area. This WSA, along with the Cross Mountain WSA, supports a herd of bighorn sheep.

Beaver Creek is a Colorado Division of Wildlife Class II, High Priority Fishery Resource with probable occurrence of State or Federal threatened species. The upper reaches of Beaver Creek once contained a pure strain of Colorado River cutthroat trout, formerly a State-listed threatened species. Beaver Creek presently is inhabited by Yellowstone cutthroat, brook trout, and brown trout. Aquatic and riparian habitats are presently in above average condition.

Cold Spring Mountain is a significant viewshed from Browns Park which is experiencing increased visitor use. No formal surveys have been conducted to determine the presence of threatened or endangered animals. Habitat for Oenothera acutissima (acute leaf evening primrose) occurs within the WSA. A known location also occurs at Cold Spring, but it is outside the study area. Oenothera acutissima is a "candidate" for listing as a threatened or endangered species and appears on the Federal Register Notice of Review as a category 2 entry. Its habitat is seasonally moist to wet sandy and gravelly soils in meadows (depressions or stream courses) and springs in mixed conifer forests and sagebrush scrub.

Marginal nesting habitat is available for the peregrine falcon. A possible observation of a peregrine falcon was made in 1988 by an employee of the Colorado Division of Wildlife during an aerial survey. This observation was never verified. The bald eagle is also a potential inhabitant.

The WSA appears to be in a transition zone between the Rocky Mountain Forest Province ecoregion and the Wyoming Basin Province ecoregion. There are no other WSAs within Colorado within the Wyoming Basin Province.

Diversity in the National Wilderness Preservation System (NWPS)

Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of this WSA would add ecosystems which currently have little or no representation in the NWPS in Colorado. The WSA appears to be in a transition zone between the Rocky Mountain Forest Province and Wyoming Basin Province ecoregions. The area has been classified as having juniper-pinyon woodland potential natural vegetation (PNV) (12,420 acres) in the Rocky Mountain Forest Province and sagebrush steppe PNV (5,262 acres) in the Wyoming Basin Province. There is only one designated area in Colorado and only 2 areas nationwide with juniper-pinyon woodland. There are no designated wilderness areas in Colorado with Wyoming Basin, sagebrush steppe. A portion of Dinosaur National Monument to the south is representative of the juniper-pinyon ecosystem and although portions are administratively endorsed for wilderness designation, it is not part of the NWPS. West Cold Spring is the only WSA in Colorado within the Wyoming Basin Province (see Table 2).

Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers:

The West Cold Spring WSA is within a days drive of two major populations centers in Utah and within 6-1/2 hours drive of Denver, Colorado. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a 5-hour drive of the populations centers.

Balancing the geographic distribution of wilderness areas:

The West Cold Spring WSA would contribute to balancing the geographic distribution of areas within the NWPS.

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	**AREAS**	**ACRES**	**AREAS**	**ACRES**
NATIONWIDE (ROCKY MOUNTAIN FOREST PROVINCE)				
Juniper-Pinyon Woodland	2	41,451	22	167,864
NATIONWIDE (WYOMING BASIN PROVINCE)				
Sagebrush Steppe	1	67,026	17	235,293
COLORADO (ROCKY MOUNTAIN FOREST PROVINCE)				
Juniper-Pinyon Woodland	1	11,181	16	119,424
COLORADO (WYOMING BASIN PROVINCE)				
Sagebrush Steppe	0	0	0	0

Source: BLM File Data.

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

	NWPS AREAS		OTHER BLM STUDIES	
POPULATION CENTERS	**AREAS**	**ACRES**	**AREAS**	**ACRES**
Salt Lake City-Ogden, Utah	11	685,088	42	1,826,904
Provo-Orem, Utah	12	730,088	52	2,307,031

Source: BLM File Data.

The nearest designated wilderness is the High Uintas (460,000 acres) some 50 miles to the west in Utah. However, the landforms and ecosystems are entirely different than those found in the WSA and West Cold Springs has year round access from Browns Park. Part of Dinosaur National Monument to the south has been administratively endorsed for wilderness designation. The Diamond Breaks WSA lies some 4 miles to the south on the opposite side of Browns Park. The West Cold Spring WSA, Diamond Breaks WSA, and Dinosaur National Monument complement each other with different ecosystems, landforms, and opportunities to attain diverse wilderness experiences.

There are an additional eight BLM study areas within a 1 to 3 hour drive of West Cold Spring. Since this WSA is accessible year round, represents different ecosystems, and provides different recreation opportunities, the area expands opportunities to attain diverse wilderness experiences.

Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The West Cold Spring WSA could be effectively managed to preserve its wilderness character. The large, blocked configuration of the area enhances management. There are no pre-FLPMA leases and only one post-FLPMA oil and gas lease, and no mining claims within the WSA. The post-FLPMA oil and gas lease would not be developed if the area was designated as wilderness. Approximately one-half of the WSA is unallotted for grazing. No range improvement projects are planned. The WSA is bordered mostly by undeveloped BLM lands and State lands. The boundary adjustment alternative would enhance management of the area by expanding the boundaries to include areas with wilderness characteristics and acquiring adjacent State lands to be managed as wilderness, thus enhancing a large area with manageable and identifiable boundaries. These boundary adjustments include 1.5 miles of Beaver Creek Canyon and Little Beaver Creek Canyon. The northern boundary would follow a ridge line for approximately 4 miles providing an easily identifiable boundary on the ground.

Energy and Mineral Resource Values

The West Cold Spring WSA lies 3 to 4 miles south of the mapped outcrop of the Uinta Fault, a south dipping thrust fault. Geologic mapping of the fault has resulted in differing opinions of its attitude.

There are three deep (subthrust) oil and gas exploration drill holes just north of the WSA boundary along an east to west trend. The McMoran-Freeport 43-2a drill hole intersected the Uinta Fault at 8,890 feet, the Champlin-Phillips-Bear Springs 31-19 well intersected the fault at 7,100 feet, and the Amoco Cold Spring #1 drill hole intersected the fault at 9,233 feet. Projecting these Uinta Fault intersections near the WSA to the fault outcrop resulted in an average fault plane angle of about 25 degrees with a projected depth of 9,000 to 16,000 feet below the WSA at the north and south boundaries respectively.

These depths are well within the limits of modern drilling technology and coupled with the oil and gas shows, especially at the Amoco and McMoran-Freeport wells, indicate that there is a moderate potential for oil and gas within the WSA.

The proximity of the WSA to the Uinta Thrust Fault, and to subthrust drill holes that had good oil and gas shows (the Amoco Cold Springs #1 and the McMoran-Freeport 43-2a), indicates that there is a good likelihood that oil and gas exploration would take place in the foreseeable future. The drilling complexities and costs associated with 10,000 to 15,000 feet deep drill holes in overthrust regions would keep such exploration limited to the best possible prospects. This would also probably limit exploration to less than 10 drill holes. Large, producible fields, while possible, are not expected to be discovered in this WSA.

Industry input, interest in oil and gas leasing, and shows of oil and gas in nearby subthrust wells indicate that the foreseeable future could see up to six wells drilled in the WSA for exploration purposes. This exploration scenario is only one conceivable option, and has been developed for analysis purposes in the Final Wilderness EIS, but is typical of what could be expected if the WSA is not designated wilderness.

Any development of an oil and gas field would depend on discovering a large enough reservoir of producible oil and gas, favorable market conditions, and proximity of this field to a pipeline or storage and transportation. No development scenario has been developed due to the highly speculative nature of any exploration successfully fulfilling these criteria.

There are no mining claims, nor are there any reported mineral occurrences within the WSA, although there is minor gold, silver, and copper mineralization in small veins in the region.

Minor hot springs occur west of the WSA, but the area is not considered prospectively valuable for any leasable mineral resources, other than oil and gas. The distance from any markets for salable mineral resources preclude any uses other than local road or drill pad construction.

Impacts on Resources

The comparative impacts table (Table 4) summarizes the effects on pertinent resources for the three alternatives for this WSA.

Local Social and Economic Considerations

With either designation or nondesignation of this WSA as wilderness, it is predicted that the area would still see an increase in recreation use. However, designation of the West Cold Spring WSA as wilderness would help to incrementally increase long-term recreation use in the Browns Park and Maybell areas. Greater public awareness and publicity of the area would also draw wilderness users from outside northwest Colorado. Recreation use of the area is projected to increase from 1,000 to 1,200 visitor days or more. This increase in recreation use would generate some long-term increase in local income and although not large, could be noticed in smaller communities in the area such as Browns Park and Maybell. These economic benefits to smaller communities could be more noticeable if all the areas proposed for wilderness in the northwest part of Colorado became wilderness.

Local economies would not be substantially affected by oil and gas exploration or development if the areas were not designated as wilderness. Oil and gas activity would, however, result in a small, short-term increase in local incomes. Social factors were not considered a significant issue in the study.

Summary of WSA Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Certain comments reviewed during the inventory process and early stages of the Draft EIS were used to develop significant study issues and various alternatives for the ultimate management of those lands with wilderness values.

During formal public review of the Draft EIS, a total of 118 comments (35 oral and 83 written) were received which specifically addressed this WSA. In general, 110 comments (93 percent) supported wilderness designation and 5 comments (4 percent) favored releasing the area for other uses (no wilderness). Three comments (3 percent) gave no recommendation.

Specific comments by those favoring wilderness designation generally focused on the outstanding wilderness values including significant and valuable fish and wildlife habitat and outstanding recreation opportunities. Some comments point out that wilderness designation would protect special features in the WSA as well as the visual resource, water, other natural resources, and ecological diversity within the region. Other comments state that the area should be much larger and be expanded to include BLM public lands with wilderness characteristics east of the Matt trail to include Limestone Ridge, Big Joe Basin, and Little Joe Basin as well as the remainder of Beaver Creek Canyon. Generally, comments state that wilderness designation for West Cold Spring is more important than any mineral values or other uses of the area.

Those opposing wilderness designation generally state that there is enough or too much designated wilderness now and favor other uses (grazing, oil and gas exploration, etc), for the WSA. The Moffat County Commissioners are opposed to wilderness designation of West Cold Spring WSA.

No other Federal, State, or local agencies gave WSA specific recommendations, however, the State of Utah Natural Resources Department, Wildlife Resources commented that vegetation manipulation is needed to maintain forage for the bighorn sheep herd in the WSA.

TABLE 4
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

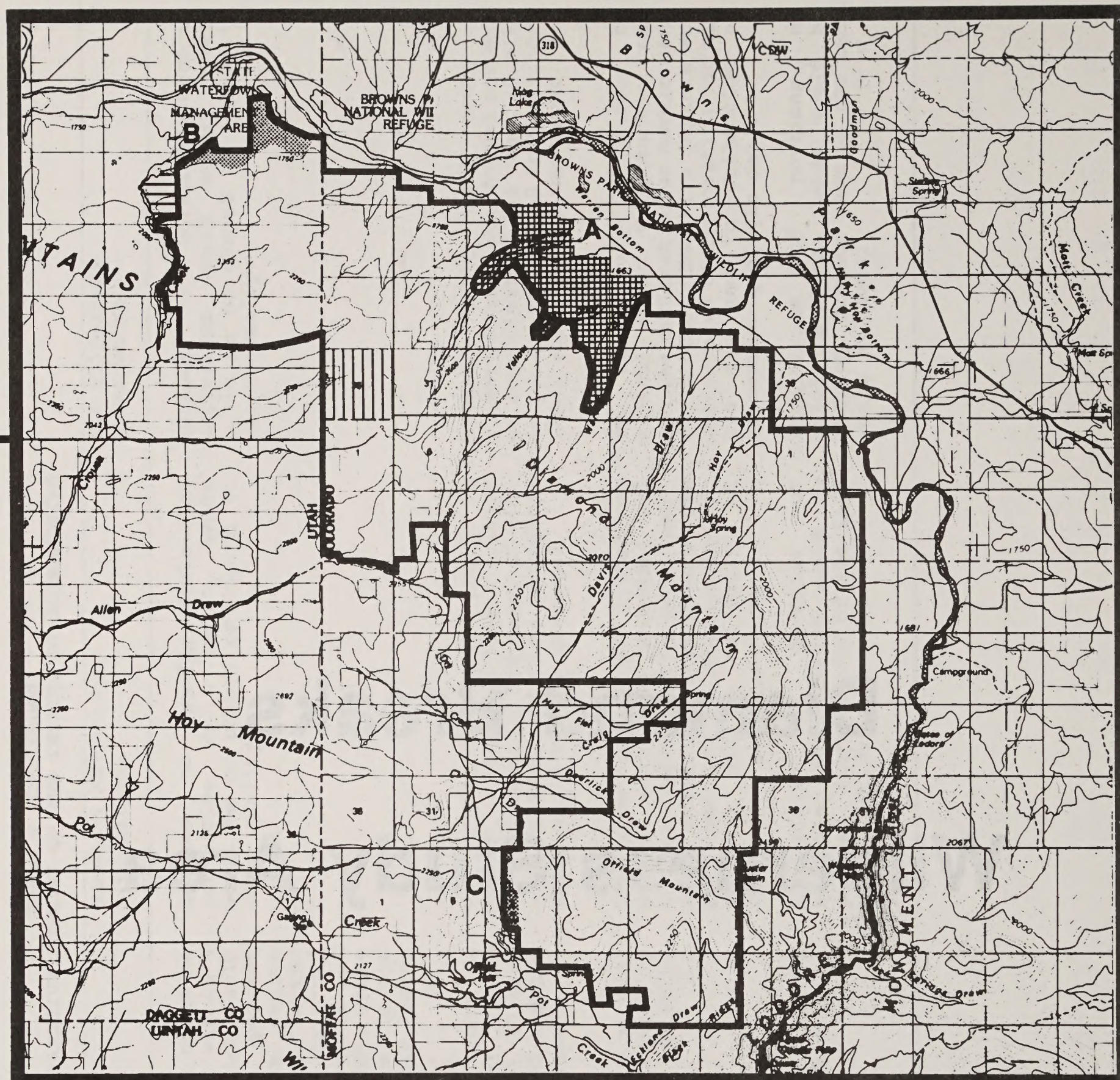
Impact Topics	Recommendation No Action/No Wilderness	Boundary Adjustment Alternative	All Wilderness Alternative
Impacts on Wilderness Characteristics	The wilderness values of naturalness, solitude, and primitive and unconfined recreation would be lost over an estimated 6,000 acres of the 17,682-acre WSA through combined effects of projected activities and uses.	Opportunities for solitude, primitive and unconfined recreation, and the naturalness of the area would be protected and increase on 19,122 acres. Naturalness would be enhanced by allowing existing ways and trails to rehabilitate.	Opportunities for solitude, primitive and unconfined recreation, and the naturalness of the area would be protected on the entire 17,682-acre WSA. Naturalness would be enhanced by allowing existing ways and trails to rehabilitate.
Impacts on Ranching Operations	Livestock forage production would increase by about 159 Animal Unit Months (AUMs) from the current level of 661 AUMs to a total of 820 AUMs. Operating costs associated with range improvement projects would remain at current levels because motor vehicle use would be allowed.	Livestock forage production within the proposed area would remain at current levels of 841 AUMs and at 661 AUMs within the original WSA. Operating costs on grazing allotments within the WSA would be slightly higher where livestock operations could be accomplished reasonably without the use of motorized vehicles.	Livestock forage production within the WSA would remain at current levels of 661 AUMs. Operating costs on grazing allotments within the WSA would be slightly higher where livestock operations could be accomplished reasonably without the use of motorized vehicles.
Impacts on Recreation Use and Quality	Recreation use levels are expected to increase from 1,000 visitor days per year to 1,200 visitor days per year. Motorized vehicle use would increase. Opportunities for primitive and unconfined recreation would be reduced because of development activities and other uses.	Recreation use levels within the proposed wilderness area are expected to increase from 1,000 visitor days to 1,200 visitor days per year. Opportunities for primitive and unconfined recreation would increase in a larger area with a natural setting.	Recreation use levels in the proposed wilderness area are expected to increase from 1,000 visitor days to 1,200 visitor days per year. Opportunities for primitive and unconfined recreation would remain unchanged in a natural setting.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	Boundary Adjustment Alternative	All Wilderness Alternative
Impacts on Water Quality	Overall, sediment yields could be increased by 200 percent within 4 percent of the WSA (which would average out to an 8 percent increase throughout the entire WSA) over the short term. In the long term, sediment yields would be decreased by an average of 1.2 percent throughout the WSA. These changes within the WSA would not affect water quality within Beaver Creek or the Green River.	Because no surface-disturbing activities would occur, there would be no change or impact to water quality.	Because no surface-disturbing activities would occur, there would be no change or impact to water quality.
Impacts on Big Game Species (Populations and Habitat) and Eagles	Wildlife habitat would remain in present conditions. Animal numbers of approximately 265 deer, 17 elk, 10 pronghorn, and 40 to 50 bighorn sheep would remain unchanged.	Wildlife habitat would remain in present conditions. Animal numbers of approximately 265 deer, 17 elk, 10 pronghorn, and 40 to 50 bighorn sheep would remain unchanged.	Wildlife habit would remain in present conditions. Animal numbers of approximately 265 deer, 17 elk, 10 pronghorn, and 40 to 50 bighorn sheep would remain unchanged.
Impacts on Mineral Exploration and Production	The area would be open to mineral entry. Oil and gas exploration is expected. No interest in other minerals is expected.	The area would be closed to mineral entry. No potential oil and gas exploration or development would occur. Negative impacts are anticipated to exploration for oil and gas and to collection of subsurface geologic data.	The area would be closed to mineral entry. No potential oil and gas exploration or development would occur. Negative impacts are anticipated to exploration for oil and gas and to collection of subsurface geologic data.
Impacts on Private Lands	No change in ownership or use of Federal land is anticipated.	Acquisition of portions of adjoining State lands would be pursued. Current uses of the land would continue.	Acquisition of portions of adjoining State lands would be pursued. Current uses of the land would continue.

Diamond Breaks

Wilderness Study Area


T 1 N
T 1 S
T 10 N
T 9 N
T 9 N
T 8 N
STATE WATERFOWL MANAGEMENT AREA
BROWNS PARK NATIONAL WILDLIFE REFUGE
B
A
C
Ring Lake
Warren Bottom
Yellow
Hay Draw
Davis Mountain
Allen Draw
Hay Mountain
Offield Mountain
Campground
Matt Creek
Stinking Spring
Johnny Spring
Pot Creek
Cottonwood Creek
Cottonwood Draw
Hay Flat Draw
Offield Draw
Pot Creek
Echland Draw
Cottonwood Creek
Antelope Draw
Area of Leases
UTAH
COLORADO
DAGGETT CO
UINTAH CO
MONUMENT
R 25 E
R104 W
R 103 W
R 103 W
R 102 W
RECOMMENDED FOR WILDERNESS
RECOMMENDED FOR NONWILDERNESS
LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS
SPLIT ESTATE
STATE
PRIVATE (NONE)
Miles
1 0 1 2 3
N
Diamond Breaks WSA
Proposal
CO-010-214 and UT-080-113
January 1991

DIAMOND BREAKS WILDERNESS STUDY AREA

THE STUDY AREA: 35,380 acres

The Diamond Breaks Wilderness Study Area (WSA) (CO-010-214 and UT-080-113) is located in Moffat County, Colorado, and Dagget County, Utah, approximately 65 miles northwest of Maybell, Colorado. The WSA includes 35,380 acres of BLM lands with an inholding of 635 acres of split-estate (State mineral estate and BLM surface) (see Table 1). A section of Utah State land adjoins the northern boundary in Crouse Canyon. The WSA is bounded on the north and east by the Browns Park National Wildlife Refuge and Dinosaur National Monument respectively. The western boundary is a mix of private property lines and undeveloped BLM lands. Some of the private lands bordering the WSA in the west are cultivated fields. A 3-mile portion of the western boundary follows the Utah-Colorado border. The area is shown on the map.

The WSA consists of the broken, mountainous, land mass known as the Diamond Mountains, part of the eastern extension of the Uinta Range. A dominant feature of the area is a series of northeast-southwest trending mountain peaks with ridges, steep draws, and canyons draining north and south to southwest. This series of colorful, rugged, red sandstone ridges "break" toward the Green River to the north in Browns Park. The Diamond Breaks provide a dramatic and significant, scenic, mountainous background as viewed from Browns Park and along the Green River in the Browns Park National Wildlife Refuge.

TABLE 1
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA[a]

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	34,745
Split-Estate (BLM surface only)[b]	635
In-holdings (State, Private)	0
Total	35,380
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	34,405
BLM (outside the WSA)	1,200
Split-Estate (within the WSA)	635
Total BLM land recommended for wilderness	36,240
In-holdings (State, private)	190
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	340
Split-Estate	0
Total BLM land not recommended for wilderness	340
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

UTAH	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	3,900
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	3,900
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	3,620
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	3,620
In-holdings (State, private)	190
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	280
Split-Estate	0
Total BLM land not recommended for wilderness	280
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

COLORADO	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	30,845
Split-Estate (BLM surface only)	635
In-holdings (State, Private)	0
Total	31,480
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	30,785
BLM (outside the WSA)	1,200
Split-Estate (within the WSA)	635
Total BLM land recommended for wilderness	32,620
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	60
Split-Estate	0
Total BLM land not recommended for wilderness	60
In-holdings (State, Private)	0

Source: BLM File Data

[a] The Appendix is a detailed table of in-holdings and/or split-estate tracts included within the portion of the WSA recommended for designation.

[b] In this report, split-estate lands are defined as only those lands with Federal surface and non-Federal subsurface (minerals). Lands that have Federal minerals but non-Federal surface are classified according to the owner of the surface.

The WSA contains a diverse mixture of vegetative communities, varying from sagebrush to pinyon-juniper woodlands to aspen, mountain brush, Douglas fir, limber pine, and ponderosa pine. Elevation spans 3,200 feet within the area.

The WSA supports a diversity of wildlife including elk, mule deer, black bear, mountain lion, coyote, and other mammals and reptiles. Much of the WSA is winter range for deer and elk and a portion in Utah is critical winter range for deer.

There is no formal raptor inventory for the WSA, however, golden eagle and other birds of prey undoubtedly nest within the WSA because of the availability of good cliff and woodland nesting habitat.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Craig District Wilderness Final Environmental Impact Statement (EIS) published November 5, 1990. Four alternatives were analyzed in the EIS; boundary adjustment A (36,240 acres recommended for wilderness designation, includes 1,200 acres outside the WSA and 340 acres recommended for nonwilderness) which is the recommendation of this report; boundary adjustment B (37,470 acres recommended for wilderness designation, includes 2,370 acres outside the WSA and 280 acres recommended for nonwilderness); all wilderness (35,380 acres recommended for wilderness) and a no wilderness alternative.

DIAMOND BREAKS WILDERNESS STUDY AREA

RECOMMENDATION AND RATIONALE

36,240 acres
(recommended for wilderness)

340 acres
(recommended for nonwilderness)

The recommendation is to designate approximately 36,240 acres of BLM public land as wilderness and release 340 acres for uses other than wilderness (boundary adjustment A alternative). This includes 1,200 acres from outside the WSA boundary. The environmentally preferable alternative which designated an area larger than the recommendation and would result in the least change in the natural environment over the long term.

The large, blocked configuration of the WSA enhances management of the area as wilderness. Approximately 1,200 acres adjacent to the Browns Park National Wildlife Refuge is added to the area to form a manageable boundary and greatly enhance opportunities for solitude and primitive and unconfined recreation (see Parcel A on Map). The Refuge boundary is fenced and would aid in management and control activities within the designated area.

The area also borders Dinosaur National Monument to the south and southeast which increases the ability to manage the area as wilderness while expanding and protecting opportunities for solitude and primitive and unconfined movement within the area. The addition of a portion of State lands in Utah and acquiring a section of State mineral estate in Colorado would further enhance wilderness management of Diamond Breaks (see Map).

Approximately 280 acres on the northern boundary in Utah (Parcel B on map), and 60 acres along the southwest boundary (Parcel C on Map), are excluded from the area. Parcel B is in conflict with a lease agreement with the Utah Division of Wildlife and Parcel C realigns the boundary to follow a short segment of Dry Creek.

Diamond Breaks is recommended for wilderness designation because of the truly outstanding wilderness values, including solitude, primitive recreation, outstanding scenery, and lack of conflicts with other resources. The recommended area provides a scenic mountainous viewshed from Browns Park and the Green River (which is recommended for scenic designation under the Wild and Scenic Rivers Act). A portion of the recommended area in Utah is within the Green River scenic corridor Area of Critical Environmental Concern (ACEC) (which was designated to protect the scenic, historic, archaeologic, recreational, and scientific values present along the river corridor).

The area is easily accessible for wilderness recreation opportunities throughout most of the year from the lower elevations in Browns Park. The WSA is within a 4 to 5 hour drive of the Salt Lake City-Ogden, Utah metropolitan area and approximately 6.5 hours from Denver, Colorado.

Designation of the Diamond Breaks area as wilderness would preserve an area of scenic, undeveloped, semi-arid mountainous landforms and ecosystems which are not well represented in the National Wilderness Preservation System (NWPS). The diverse vegetative communities range from sagebrush and pinyon-juniper woodlands to aspen, mountain brush, Douglas fir, limber pine, and ponderosa pine forests. The deep red sandstone outcrops contrast with the deep green woodlands to provide a scenic background and interesting landscape.

The presence of Diamond Breaks in its natural state complements the natural and cultural features in Dinosaur National Monument to the south and east. Wilderness designation would protect these natural and cultural features as well as scenic vistas of the area.

No manageability problems or resource conflicts would result from wilderness designation. No new range improvements have been proposed and no conflicts with range management are expected. Portions of six livestock grazing allotments lie within the recommended area with a large central portion unallotted. An estimated 1,166 Animal Unit Months (AUMs) of livestock forage is available. Existing range improvements within the proposed area consist of 3 miles of fence, three stock ponds, and two developed springs with stock tanks and buried pipeline. Maintenance of these existing range improvements would continue.

Oil and gas and other mineral potential in the area is considered to be low according to the U.S. Geological Survey report for the WSA. There are no mining claims or leases within the proposed area.

CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

Naturalness

The Diamond Breaks WSA is predominantly natural with negligible human imprints. The study area consists of a broken mountainous land mass known as the Diamond Mountains, part of the eastern extension of the Uinta Range. A dominant feature of the area is a series of northeast-southeast trending mountain peaks, with ridges draws, and canyons trending north and south-southwest. This series of colorful pinyon-juniper covered red sandstone ridges "break" toward the Green River in Browns Park to the northeast.

Vegetation is diverse in this semi-arid area and varies from sagebrush and pinyon-juniper woodlands to mountain brush communities, aspen, Douglas fir, and Ponderosa pine forest with scattered limber pine at higher elevations. Elevations range from 5,400 feet near the Green River to 8,600 feet in the western portion of the WSA.

Minor human imprints are scattered and consist of three stock tanks, three stock ponds, 3 miles of fence, 150 feet of buried pipeline, and approximately 10.5 miles of ways. The wide distribution and screening by vegetation and topography make these imprints substantially unnoticeable within the recommended area as a whole.

The Diamond Breaks area supports diverse wildlife such as elk, mule deer, coyote, mountain lion, black bear, raptors, and other small birds, mammals, amphibians, and reptiles. Slightly less than one-half of the area is considered to be winter range for deer and elk and small portions are considered to be severe winter range.

No formal raptor nest inventory has been done, however, golden eagle and other raptors undoubtedly nest within the WSA with the availability of good habitat.

Solitude

The diverse and rugged topography, large size, blocked configuration, dense vegetation, and low use within this WSA, provide outstanding opportunities to experience solitude throughout the WSA. The proposed area provides room for visitors to disperse and become isolated. The ruggedness and natural character of the area prevent outside influences from affecting the visitors experience of solitude. The expansive views both within and outside the area further enhances the feeling of solitude. The numerous canyons and steep draws offer excellent opportunities for a visitor to become truly isolated within this remote area of northwest Colorado.

Primitive and Unconfined Recreation

The Diamond Breaks WSA offers outstanding opportunities to experience primitive and unconfined recreation activities such as hiking, backpacking, horseback riding, camping, scenic viewing, viewing wildlife, and viewing cultural sites. The numerous draws and ridges provide foot or horseback travel into or through the area such as the Hoy Trail in Hoy Draw.

The recommended area in conjunction with Dinosaur National Monument further enhances opportunities for unconfined movement and spectacular views into the deep, red Canyon of Lodore where whitewater floatboating occurs. The WSA also borders the Browns Park National Wildlife Refuge which offers different recreation opportunities, settings, and experiences. These areas all complement each other and together offer diverse recreational opportunities, settings, and experiences.

Special Features

Although no formal cultural resource inventories have been conducted, it is known that significant cultural resources such as rock art, granaries, rock shelters, and lithic scatter sites related to prehistoric and historic occupation can be found in the WSA. Approximately 1,750 acres of the WSA in Utah is part of the Green River scenic corridor, ACEC. The ACEC is designated to protect scenic, historic, archaeological, recreational, and scientific values present along the river corridor. The WSA provides an important scenic, mountainous background from the Green River, Browns Park, Browns Park National Wildlife Refuge and the northern end of Dinosaur National Monument. The Green River, through the adjacent Browns Park National Wildlife Refuge, is pending Congressional action for designation as a scenic river under the Wild and Scenic Rivers Act. A small portion of the WSA in Utah is designated as critical habitat (winter range) for mule deer.

Diversity in the National Wilderness Preservation System (NWPS)

Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of the WSA would add a landform and semi-arid ecosystems which currently have little or no representation in the NWPS in Colorado. Diamond Breaks lies in the Rocky Mountain Forest Province ecoregion with juniper-pinyon woodlands (17,000 acres), sagebrush steppe (3,380 acres), and mountain mahogany-oak scrub (15,000 acres) ecosystems. The sagebrush steppe and mountain mahogany-oak scrub ecosystems are not represented in designated wilderness in Colorado. The juniper-pinyon woodland ecosystem is represented in only one area in Colorado and only two areas nationwide. Dinosaur National Monument (DNM) adjacent to the south, is representative of the juniper-pinyon woodland and sagebrush steppe ecosystems. Although, portions of the DNM are administratively endorsed for wilderness designation, they are not part of the NWPS (see Table 2).

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	**AREAS**	**ACRES**	**AREAS**	**ACRES**
NATIONWIDE (ROCKY MOUNTAIN FOREST PROVINCE)				
Juniper-Pinyon Woodland	2	41,451	21	163,574
Sagebrush Steppe	4	76,129	22	241,526
Mountain Mahogany-Oak Scrub	7	80,852	7	35,840
COLORADO (ROCKY MOUNTAIN FOREST PROVINCE)				
Juniper-Pinyon Woodland	1	11,181	15	115,134
Sagebrush Steppe	0	0	9	31,960
Mountain Mahogany-Oak Scrub	0	0	5	30,495

Source: BLM File Data.

Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 Hours) of major population centers:

The Diamond Breaks WSA is within a day's drive of two major populations centers in Utah. The area is within a 6.5 hour drive of Denver, Colorado. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a 5-hour drive of the population centers.

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

	NWPS AREAS		OTHER BLM STUDIES	
POPULATION CENTERS	**AREAS**	**ACRES**	**AREAS**	**ACRES**
Salt Lake City-Ogden, Utah	11	685,088	42	1,826,904
Provo-Orem, Utah	12	730,088	52	2,307,031

Source: BLM File Data.

Balancing the geographic distribution of wilderness areas:

The Diamond Breaks WSA would contribute to balancing the geographic distribution of areas within the NWPS. The nearest wilderness is the High Uintas (460,000 acres) some 50 miles to the west in Utah. However, the landforms and ecosystems are entirely different than those found in the WSA. In addition, Diamond Breaks has year-round access from Browns Park. Portions of Dinosaur National Monument to the south has been administratively endorsed for wilderness designation and these two areas complement each other. The Dinosaur National Monument protects the core area of the Lodore and Yampa River Canyons while Diamond Breaks is a mountainous, upland, landform with both similar and different ecosystems. The West Cold Spring WSA is located some 4 miles to the north on the opposite side of Browns Park. The Diamond Breaks WSA, West Cold Spring WSA, and Dinosaur National Monument complement each other with different ecosystems, landforms, and opportunities to attain diverse wilderness experiences. There are an additional eight BLM study areas within a 1 to 3 hour drive of Diamond Breaks. Since this WSA is accessible year round, contains different ecosystems and landforms, and provides different recreation opportunities than other nearby areas, the opportunities to attain diverse wilderness experiences are expanded.

Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The Diamond Breaks WSA can be effectively managed to preserve its wilderness character. The boundaries have been adjusted to include enough area to enhance and insure manageability. Adding approximately 1,200 acres adjacent to the Browns Park National Wildlife Refuge will insure control of off-highway vehicle and other noncompatible uses and provide an easily identified, fenced boundary. A portion of the area recommended as nonsuitable in Utah will allow a continuing lease agreement with the Utah Wildlife Division to remain active and provide wildlife habitat diversity.

The State school trust lands in Utah identified for acquisition (approximately 190 acres) would further enhance the manageability of the area as would acquisition of 635 acres of State mineral rights in Colorado.

Existing range improvements consisting of 3 miles of fence, three stock ponds, and two developed springs with watering tanks, and buried pipeline would continue to receive maintenance with the use of motorized vehicles, only if necessary. No new range improvements are proposed.

There are no oil and gas leases or mining claims within the area. With the exception of 635 acres of split-estate and Utah State lands, all other subsurface minerals within the area are under Federal ownership.

Energy and Mineral Resource Values

The Diamond Breaks WSA energy and mineral values were evaluated in Mineral Resources of the Diamond Breaks Wilderness Study Area, Moffat County, Colorado, and Dagget County, Utah, U.S. Geological Survey Bulletin 1714-B (1988).

The study area has inferred subeconomic resources of sand, gravel, and common variety rock. The potential for undiscovered resources of gold, uranium, copper, lead, zinc, or other metals, tuff (pumicite), and oil and gas is rated low. There is no resource potential for coal, manganese, phosphate, clay and shale, limestone, and gypsum. The resource potential for barite and commercial grade silica is unknown. This conclusion is based on field studies conducted in 1986 and 1987.

Assessments by BLM have determined that the Diamond Breaks WSA contains no real mineral value and there is little likelihood that any exploration or mineral development would occur in the foreseeable future.

Impacts on Resources

The comparative impact table (Table 4) summarizes the effects on pertinent resources for the four alternatives for this WSA.

Local Social and Economic Considerations

Designation of the Diamond Breaks WSA as wilderness would incrementally help to increase recreation use in the Browns Park area. Greater public awareness and publicity of the area would also draw

wilderness users from outside northwest Colorado. Recreation use of the area is projected to increase from 800 to 1,000 visitor days per year or more. This increase in recreation use would generate some long-term increase in local income and, although not large, could be noticed in smaller communities in the area such as Browns Park and Maybell. These economic benefits to smaller communities could be even more noticeable if all the areas proposed for wilderness in the northwest part of Colorado became wilderness. Social factors were not considered a significant issue in the study.

Summary of WSA
Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Certain comments reviewed during the inventory process and early stages of the Draft EIS were used to develop significant study issues and various alternatives for the ultimate management of those lands with wilderness values.

During formal public review of the Draft EIS a total of 144 comments (42 oral and 102 written) were received which specifically addressed this WSA. In general, 138 comments (96 percent) supported wilderness designation and three (2 percent) favored releasing the area for other uses (no wilderness). Three comments (2 percent) gave no specific recommendation.

Those favoring wilderness designation generally commented on the outstanding wilderness and scenic values of the WSA as well as the biological diversity exhibited in the WSA. Several comments support expanding the area in Utah in addition to the recommendation which would add areas with wilderness characteristics.

Those opposing wilderness designation generally feel that there is enough or too much designated wilderness now and favor other uses for the WSA.

The National Park Service and Colorado Department of Natural Resources support wilderness designation for Diamond Breaks. The State of Utah Division of Wildlife Resources requested a minor boundary change to eliminate a small area used to develop winter range for wildlife. This is consistent with the boundaries in the recommendation.

No other Federal, State, or local agencies gave specific recommendations for this WSA.

TABLE 4
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation: Boundary Adjustment A Alternative (36,240 acres)	Boundary Adjustment B B Alternative (37,470 acres)	All Wilderness Alternative	No Wilderness Alternative
Impacts on Wilderness Character-istics	Opportunities for solitude, primitive and unconfined recreation, high scenic quality, and the naturalness of the area would be protected and increased on 36,240 acres.	Opportunities for solitude, primitive and unconfined recreation, high scenic quality, and the naturalness of the area would be protected and increased on 37,470 acres.	Opportunities for solitude, primitive and unconfined recreation, high scenic quality, and the naturalness of the area would be protected on 35, 380 acres.	The quality of naturalness along the east and west boundaries would be diminished slightly as a result of livestock grazing and construction of one new stock pond.
Impacts on Ranching Operations	Livestock forage production within the proposed wilderness area would remain at current levels of 1,347 AUMs and at 1,166 AUMs within the original WSA. Operating costs on grazing allotments within the wilderness area would be slightly higher where livestock operations could be accomplished reasonably without the use of motorized vehicles.	Livestock forage production within the proposed wilderness area would remain at 1,385 AUMs and at 1,166 AUMs within the original WSA. Operating costs on grazing allotments within the wilderness area would be slightly higher where livestock operations could be accomplished reasonably without the use of motorized vehicles.	Livestock forage production within the WSA would remain at current levels of 1,166 AUMs. Operating costs on grazing allotments within the WSA would be slightly higher where livestock operations could be accomplished reasonably without the use of motorized vehicles.	Livestock forage production would remain at 1,166 AUMs. Operating costs associated with range improvement projects would remain at current levels because motor vehicle use would be allowed.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation: Boundary Adjustment A Alternative (36,240 acres)	Boundary Adjustment B B Alternative (37,470 acres)	All Wilderness Alternative	No Wilderness Alternative
Impacts on Recreation Use and Quality	Recreation use levels in the proposed wilderness area are expected to increase from 800 visitor days to 1,000 visitor days per year. Opportunities for primitive recreation would remain unchanged, while unconfined movement would be enhanced in a larger area with a natural setting.	Recreation use levels in the proposed wilderness area are expected to increase from 800 visitor days to 1,000 visitor days per year. Opportunities for primitive recreation would remain unchanged, while unconfined movement would be enhanced in a larger area with a natural setting.	Recreation use levels in the proposed wilderness area are expected to increase from 800 visitor days to 1,000 visitor days per year. Opportunities for primitive and unconfined recreation would remain unchanged in a natural setting.	Visitor use levels would increase from 800 to 1,000 visitor days per year. The Colorado portion of the WSA would be managed to provide a predominantly natural setting. Opportunities for primitive and unconfined recreation would remain unchanged in all of the WSA.
Impacts on Big Game Species (Populations and Habitat) and Eagles	Wildlife habitat would remain in present conditions. Animal numbers of approximately 560 deer and 35 elk would remain unchanged.	Wildlife habitat would remain in present conditions. Animal numbers of approximately 560 deer and 35 elk would remain unchanged.	Wildlife habitat would remain in present conditions. Animal numbers of approximately 560 deer and 35 elk would remain unchanged.	Wildlife habitat would remain in present conditions. Animal numbers of approximately 560 deer and 35 elk would remain unchanged.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation: Boundary Adjustment A Alternative (36,240 acres)	Boundary Adjustment B B Alternative (37,470 acres)	All Wilderness Alternative	No Wilderness Alternative
Impacts on Mineral Exploration and Production	The area would be closed to mineral entry and the low potential for oil and gas exploration or development would be precluded. No subsurface geologic data would be gathered.	The area would be closed to mineral entry and the low potential for oil and gas exploration or development would be precluded. No subsurface geologic data would be gathered.	The area would be closed to mineral entry and the low potential for oil and gas exploration and development would be precluded. No subsurface geologic data would be gathered.	The area would be open to mineral entry. No interest in oil and gas exploration is anticipated. Only limited interest in other minerals would be expected.
Impacts on Private Lands	Acquisition of a portion of adjoining State land and 635 acres of State mineral estate would be pursued. Current use of the land would continue.	Acquisition of a portion of adjoining State land and 635 acres of State mineral estate would be pursued. Current uses of the land would continue.	Acquisition of a portion of adjoining land and 635 acres of State mineral estate would be pursued. Current uses of the land would continue.	Acquisition of 635 acres of State mineral estate would be pursued. Current uses of the land would continue.
Impacts on Water Quality	Because no surface-disturbing activities would occur, there would be no change or impact to water quality.	Because no surface-disturbing activities would occur, there would be no change or impact to water quality.	Because no surface-disturbing activities would occur, there would be no change or impact to water quality.	Because no surface-disturbing activities are expected to occur, there would be no change or impact to water quality.

DIAMOND BREAKS WILDERNESS STUDY AREA

Table 5
Estimated Cost of Acquisition of Non Federal Holdings Within Areas Recommended for Designation 1/

Legal Description (Prior to any Subdivision)	Total Acreage	Number of Owners 2/ (If Parcel has been subdivided)	Type of Ownership by Estate (Federal, State, Private, Other) (Surface Estate)	(Subsurface Estate)	Presently Proposed for Acquisition (Yes , No)	Preferred Method of Acquisition (Purchase, Exchange, Other)	Estimated Cost of Acquisition 3/ (Land Costs)	(Processing Costs)
T. 10 N., R. 104 W., Sec. 36	635.00	1	Federal	State	Yes	Exchange	N/A	$8,000
T. 1 N., R. 25 E., Sec. 16 E1/2	280.00	1	State	State	No	Exchange	N/A	$8,000

1/ Standard Disclosure: The estimated costs listed in this appendix in no way represent a Federal appraised value of the land or mineral estate, but are rough estimates based on sales or exchanges of lands or mineral estates with similar characteristics to those included in the WSA. The estimates are for purposes of establishing a range of potential costs to the government of acquiring non-Federal holdings and in no way represent an offer to purchase or exchange at the cost estimate included in this appendix.

Processing costs are all miscellaneous expenses other than land costs includnoig work month costs, appraisals, title work, escrow tests, etc.

2/ If a larger parcel as shown in the first column has been recently subdivided or is jointly owned, this column represents the number of owners that could be involved in any acquisition negotiation.

3/ Where exchange is the proposed acquisition method, only administrative costs of processing the exchange are shown. Land costs would not be applicable. Where direct purchase is proposed, an estimate of both the land costs and the processing costs are provided.

Bull Canyon

Wilderness Study Area

T5S T6S T7S

T5N T4N T4N T3N

R 25 E | R 104 W | R 103 W

RECOMMENDED FOR WILDERNESS

RECOMMENDED FOR NONWILDERNESS

LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS

SPLIT ESTATE (NONE)

STATE

PRIVATE

SCALE 1:100000

Miles 1 0 1 2 3

N

Bull Canyon WSA
Proposal
CO-010-001 and UT-080-419

January 1991

BULL CANYON WILDERNESS STUDY AREA

THE STUDY AREA: 12,297 acres

The Bull Canyon WSA (CO-010-001 and UT-080-419) is located in Moffat County, Colorado, and in Uintah County, Utah, approximately 4 miles north of Dinosaur, Colorado. The WSA includes 12,297 acres of BLM lands (11,777 acres in Colorado and 520 acres in Utah) and a 320-acre private inholding in Colorado (see Table 1). Three sections of state lands (1,920 acres) adjoin the WSA in Colorado. The area is bounded on the north, east, and south by ways on BLM land and state land property lines and to the west and northwest by topographic features and state and private property lines. The WSA is shown on the map.

The study area is more characteristic of the arid canyon ecosystem found in the Colorado Plateau than in the Rocky Mountain Forest Province ecoregion in which this WSA is located. Geographically, the area is cut by deep ridges and canyons of sandstone eroded by rain and snowmelt waters. Interesting geology with colorful cliffs, a maze of canyons, and unique rock formations are a result of deep erosion. Elevations range from 5,600 feet on K Creek in Utah to 7,400 feet on the northern boundary. The vegetation includes semi-arid species such as sagebrush and pinyon-juniper communities, with riparian zones along the drainages.

TABLE 1
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA[a]

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	12,297
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	320
Total	12,617
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	12,150
BLM (outside the WSA)	1,550
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	13,700
In-holdings (State, private)	1,855
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	220
Split-Estate	0
Total BLM land not recommended for wilderness	220
In-holdings (State, Private)	0

Source: BLM File Data

[a] The Appendix is a detailed table of in-holdings and/or split-estate tracts included within the portion of the WSA recommended for designation.

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

UTAH	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	520
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	520
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	480
BLM (outside the WSA)	140
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	620
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	40
Split-Estate	0
Total BLM land not recommended for wilderness	40
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY OF THE STUDY AREA

COLORADO	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	11,777
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	320
Total	12,097
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	11,670
BLM (outside the WSA)	1,410
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	13,080
In-holdings (State, private)	1,855
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	180
Split-Estate	0
Total BLM land not recommended for wilderness	180
In-holdings (State, Private)	0

Source: BLM File Data

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Craig District Wilderness Final Environmental Impact Statement (EIS) published November 5, 1990. Three alternatives were analyzed in the EIS. The boundary adjustment alternative recommends 13,700 acres as wilderness; the result of 12,150 acres of the original WSA, adding 1,550 acres from outside the WSAs and eliminating 220 acres from the original WSA. The all wilderness alternative (the original WSA 12,297 acres), and the no wilderness alternative were also considered.

RECOMMENDATION AND RATIONALE

13,700 acres
(recommended for wilderness)

220 acres
(recommended for nonwilderness)

The recommendation is to designate approximately 13,700 acres of BLM public land as wilderness and release 220 acres for uses other than wilderness (boundary adjustment A alternative). This area is shown on the map. This recommendation is the environmentally preferable alternative. This recommendation includes an area larger than the original WSA and would result in the least change in the natural environment over the long term.

In order to protect the wilderness values and define the unit, the area's boundaries have been adjusted by locating them along easily identifiable topographic and manmade features rather than administrative boundaries (e.g., section lines). These boundary adjustments would result in more effective management and enhance opportunities for solitude, primitive and unconfined recreation, and protect the viewshed of the area. It would also protect the viewshed of the heavily traveled Park Service road and Escalante overlook. Management of the wilderness area would also be enhanced by the blocked configuration. The addition of all or portions of three state land sections would complement and fur-

ther block up the area, providing easily identifiable boundaries.

The northern and eastern boundary would be realigned along a road and fence on K Point ridge and follows the Dinosaur National Monument access road which is fenced and easily identified on the ground (see parcel A on map). This area also contains critical elk habitat (summer range). A boundary adjustment in the southwest corner of the area would add an entire watershed in steep rugged terrain and includes most of a state land section. The recommended boundary follows a way on the south.

Other small parcels on the northwest boundary have been added to the recommended area to further block the area and provide an identifiable boundary along a ridge top to the west and an existing way along the northern boundary.

Approximately 220 acres along the western boundary are recommended for wilderness designation (see Map). The boundary has been situated along a ridge top and would eliminate the western slopes of the ridge facing away from the WSA.

Approximately 50 acres (parcel B on the map) adjacent to the Plug Hat Rock Picnic Area, has been eliminated from the recommended area in order to accommodate a small proposed campground. The 50 acres is both within and outside the original WSA. The site is well screened by vegetation and topography and is bordered on the east by the Dinosaur National Monument access road.

Bull Canyon is recommended because of the outstanding scenery and opportunities for solitude and primitive and unconfined recreation and the presence of special features. The Bull Canyon area includes vistas from the National Park Service Plug Hat Rock Overlook and the Nature Trail, the Escalante Overlook as well as the maze of canyons and colorful geology in Bull Canyon, Buckwater Draw, Middle Creek, and K Creek which converge into a wide valley to the west. The canyons provide access for hiking, backpacking, hunting, rock climbing, photography, and other recreation pursuits.

The relatively low elevation and proximity to U.S. Highway 40 makes the area easily accessible for wilderness recreation opportunities throughout the year. The Bull Canyon WSA is within a 4 to 5 hour drive of the Salt Lake City, Utah metropolitan area, about 6 hours from the Denver, Colorado metropolitan area, and approximately 3 hours from Grand Junction, Colorado.

Designation of the Bull Canyon WSA as wilderness would preserve an area of scenic, undeveloped, canyon lands. The area is more representative of the semi-arid ecosystems, geologic and topographic features found in the Colorado Plateau area rather than in the Rocky Mountain Forest physiographic features found in the Colorado Plateau area rather than in the Rocky Mountain Forest physiographic region. Pinyon-juniper, sagebrush, and native grasses and forbs are the main vegetation communities. Douglas fir, cottonwoods, boxelder, and willows comprise the often dense riparian vegetation found along drainages in the WSA. Bull Canyon, in its natural state, complements the natural features present in Dinosaur National Monument to the north. The National Park Service has integrated the natural and historic features of this WSA and surrounding area into its visitor education programs through the placement of interpretive facilities along the Harpers Corner access road (Plug Hat Rock picnic area overlooks and Natural Trail, and Escalante overlook) that borders and provides vistas of the Bull Canyon complex. Wilderness designation of Bull Canyon would protect the natural and historic features, as well as scenic vistas, of the area.

No major manageability problems or resource conflicts would result from wilderness designation. No new range improvements have been proposed and no conflicts with range management are expected. Portions of two livestock grazing allotments lie within the recommended area with an estimated 920 animal unit months (AUMs) of livestock forage available. Existing range improvements within the proposed area consist of two developed springs with watering troughs, seven stock ponds, and 3.5 miles of fence. Maintenance of these existing range improvements would continue.

Oil and gas potential in the area is considered to be low according to the U.S. Geological Survey and U. S. Bureau of Mines report for the area and the WSA is not considered prospectively valuable for any mineral resources.

CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

Naturalness

The Bull Canyon WSA is predominantly natural with negligible human imprints. The area is cut by deep scenic canyons and ridges of colorful sandstone, all of which drain to the west and converge in the west central portion of the WSA into a wide basin.

Elevations within the proposed area span some 2,100 feet ranging from 5,700 feet in Utah to 7,880 feet at K Point to the northeast.

The vegetation consists of semi-arid ecosystems with pinyon pine and juniper woodlands as the dominant community as well as sagebrush, native grasses, forbs, and saltbush plant community. Riparian areas along the drainages contain boxelder, cottonwood, and willow at times in dense stands. Douglas fir trees are found in scattered areas within the canyons.

Minor imprints within the recommended area consist of two developed springs with watering troughs, seven stock ponds, and 3.5 miles of fence. These imprints are scattered and screened by vegetation and topography making them substantially unnoticeable within the area.

The entire WSA is winter range for mule deer and most of the area is habitat for elk with about 600 acres of critical habitat (summer range) for elk within the WSA and additional critical elk habitat within the large addition of parcel A on the map. Golden eagles nest within the area as do many other birds and the area is habitat for many other mammals, reptiles, and amphibians.

Solitude

The diverse topography, dense vegetation, and the areas blocked configuration all combine to provide outstanding opportunities to experience solitude throughout the WSA. The recommended area provides additional room for visitors to disperse and become isolated. The ruggedness and natural character of the area prevent outside influences from affecting the visitor's experience of solitude.

On the higher elevations, a visitor may view the vast open space created by the basin, which is accented by the scenic backdrop of Cliff Ridge in Utah. This open space, plus the isolation afforded by the numerous canyons, enhances the opportunities for solitude.

Primitive and Unconfined Recreation

The entire area offers outstanding opportunities for primitive and unconfined recreation such as hiking, backpacking, camping, and scenic viewing. Bird watching, nature study, and horseback riding also occur in the area. Opportunities for photographing the area's natural beauty are exceptional.

The gradual stream gradients which lead out of K Creek, Middle Creek, Buckwater Draw, and Bull Canyon offer superb, rugged desert hikes. Buckwater Draw is enclosed by striking sandstone cliffs that have alcoves for exploring. Bull Canyon has spectacular, sheer cliffs that provide a scenic backdrop for challenging hikes in the rugged upper end of the canyon. Middle Creek provides easy hikes along the ridgetops or up the canyon with interesting rock formations and multicolored geology over to and in the K Creek drainage. These areas provide nesting for hawks, eagles, owls, and other birds. Coyote and deer may be seen in the late evening along hilltops and drainages.

Special Features

The Dominguez/Escalante Expedition of 1776 reportedly camped within the west central portion of the WSA. The history of the encampment is well documented and recounts that the expedition drew water from a flowing well and hunted buffalo there.

The National Park Service (Dinosaur National Monument) manages two overlook sites (Plug Hat Picnic Area and Escalante Overlook) adjacent to this area. The picnic area overlooks the WSA and interpretive signs and a natural trail describe the area's geology and history. National Park Service statistics for 1989 indicate 105,126 visitors traveled the Harper's Corner Road leading to the canyons of Dinosaur National Monument and paralleling the WSA. Many visitors frequent the picnic site and overlooks for the breathtaking vista into and over the WSA.

The University of Arizona has studied relict pinyon pine in the area to establish dendrochronological data on climate extending more than 600 years into the past. Although none is currently pro-

posed, continued research in the Bull Canyon area is anticipated. This would not affect wilderness characteristics.

A portion of the WSA is identified as critical habitat (summer range) for elk.

Significant paleontological resources have been found in the vicinity of the WSA and are likely to occur within the WSA.

Diversity in the National Wilderness Preservation System

Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of this WSA would add a landform and ecosystems which currently have little representation in the National Wilderness Preservation System (NWPS). Bull Canyon WSA is in the central part of the Rocky Mountain Forest Province with juniper-pinyon woodland (5,520 acres) and sagebrush steppe (6,777 acres) ecosystems. The sagebrush steppe ecosystem is not represented in Colorado wilderness and the juniper-pinyon ecosystem is represented by only one small area in Colorado and only two small areas nationwide. Dinosaur National Monument to the north is representative of these ecosystems, and although portions are administratively endorsed for wilderness designation, they are not part of the NWPS. The landforms are more characteristic of the Colorado Plateau than the Rocky Mountain Forest Province (see Table 2).

Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers:

The Bull Canyon WSA is within a days drive of two major population centers in Utah and within 6.5 hours drive from Denver, Colorado. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a 5-hour drive of the population centers.

Balancing the geographic distribution of wilderness areas:

The Bull Canyon WSA would contribute to balancing the geographic distribution of areas within the NWPS. The nearest designated wilderness is the High Uintas wilderness (460,000 acres) some 70 miles

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	**AREAS**	**ACRES**	**AREAS**	**ACRES**
NATIONWIDE (ROCKY MOUNTAIN FOREST PROVINCE)				
Juniper-Pinyon Woodland	2	41,451	22	167,864
Sagebrush Steppe	4	76,129	22	241,526
COLORADO (ROCKY MOUNTAIN FOREST PROVINCE)				
Juniper-Pinyon Woodland	1	11,181	16	119,424
Sagebrush Steppe	0	0	9	31,960

Source: BLM File Data.

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

	NWPS AREAS		OTHER BLM STUDIES	
POPULATION CENTERS	**AREAS**	**ACRES**	**AREAS**	**ACRES**
Salt Lake City-Ogden, Utah	11	685,088	42	1,826,904
Provo-Orem, Utah	12	730,088	52	2,307,031

Source: BLM File Data.

to the northwest in Utah. However, the landforms and ecosystems are different than those found in the Bull Canyon WSA. Part of Dinosaur National Monument to the north of the WSA has been administratively endorsed for wilderness designation but is not part of the NWPS. The Willow Creek and Skull Creek WSAs are recommended for wilderness designation and are immediately to the east, the Daniels Canyon WSA (2,495 acres adjacent to Dinosaur National Monument in Utah) some 10 miles to the northwest is not recommended for wilderness and an additional 10 study areas are within two to three hours of Bull Canyon. Four of the 13 WSAs in the region are recommended for wilderness designation. The Bull Canyon WSA is accessible year-round and expands opportunities to attain diverse wilderness experiences.

Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The recommended area can be effectively managed to preserve its wilderness character. The boundaries have been adjusted to include enough area to enhance and insure manageability. See the recommendation and rational section for a discussion of these boundary adjustments.

A developed campground is proposed to be located adjacent to the Plug Hat Rock Picnic Area. The site is well screened from the recommended area by vegetation and topography and is located outside of the recommended boundary.

The 320-acre private inholding in the center of the WSA (see map) is currently managed in a manner consistent with wilderness objectives; however, such management is subject to change at the discretion of the owner. BLM has concluded that the area is presently manageable as wilderness in spite of this concern. Possible exchange or acquisition of this land is currently being negotiated in order to ensure future compatible management.

The State School Trust Lands identified for acquisition (1,535 acres) would further enhance the manageability of the area. The blocked configuration of the unit enhances management by providing identifiable boundaries.

Existing range improvements consisting of two developed springs with watering troughs, seven stock ponds, and approximately 3.5 miles of fence would continue to be maintained by the grazing permittees with the use of motorized vehicles, only if necessary. No new range improvements are proposed.

All subsurface minerals within the WSA are under federal ownership except for the 320-acre private inholding. The BLM is currently pursuing acquisition of the mineral rights for the inholding. There are no mining claims or leases that would encumber management of the recommended area.

Energy and Mineral Resource Values

The Bull Canyon WSA energy and mineral values were evaluated in *Mineral Resources of the Bull Canyon Wilderness Study Area, Moffat County, Colorado, and Uinta County, Utah, U.S. Geological Survey Bulletin 1714 (1987).*

The WSA has no identified resources and a low mineral resource potential for undiscovered mineral resources including all metals, uranium, and oil and gas.

No mines, prospects, or other mineral-related workings are found in or within 2 miles of the WSA. The Glen Canyon Sandstone which outcrops in the WSA is suitable for use as foundry sand, fracturing sand, and abrasive sand. However, there is currently no local market for these common materials and high transportation costs preclude long distance shipment of the material. This resource is readily available elsewhere.

No metallic mineral occurrences were identified at the ground surface and geochemical samples contained no anomalous concentrating of any metals. Therefore, the mineral resource potential is low for all metallic minerals as well as uranium.

The study area has low resource potential for oil and gas. The Middle Pennsylvanian (about 330 to 290 million years old) Weber Sandstone may be present beneath the WSA, but its oil and gas potential is unknown. Most of the oil at the Rangely oil field 12 miles to the southeast, was produced from the Weber. Since the USGS report was filed, information updated by BLM reveals that the density and distribution of the 60 plus shallow drill holes in the vicinity of the WSA, lack of production, negative test results, published analysis of the subthrust play and petroleum potential, and paucity of recent drilling activity suggest that the likelihood of the WSA to contain economic oil and gas deposits is minimal. The area is not prospective-

ly valuable for any other mineral resource.

Impacts on Resources

The following comparative impact table (Table 4) summarizes the effects on pertinent resources for the three alternatives considered for this WSA.

Local Social and Economic Considerations

Designation of the Bull Canyon WSA as wilderness would incrementally help to increase long-term recreation use in the Dinosaur area. Greater public awareness and publicity of the area would also draw wilderness users from outside northwest Colorado. Recreation use of the area is projected to increase from 700 to 850 visitor days or more. This increase in recreation use would generate some long-term increase in local income and although not large, could be noticed in the smaller communities in the area such as Dinosaur. These economic benefits to smaller communities could be even more noticeable if all the areas proposed for wilderness in the northwest part of Colorado became wilderness. Social factors were not considered a significant issue in the study.

Summary of WSA Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Certain comments reviewed during the inventory process and early stages of the Draft EIS were used to develop significant study issues and various alternatives for the ultimate management of those lands with wilderness values.

During formal public review of the Draft EIS, a total of 170 comments were received which specifically addressed this WSA (114 written and 56 oral). In general, 147 comments (86 percent) supported wilderness designation and 17 (10 percent) favored releasing the area for other uses (no wilderness). Six commenters (4 percent) gave no recommendation.

Those favoring wilderness designation generally commented on the outstanding wilderness and scenic values of the WSA as well as preservation of riparian and wildlife habitat. Many of the commenters have visited the area and support the boundary adjustment alternative. Some commented on preservation of biological diversity of the area and the outstanding recreation opportunities within the area.

Several comments focused on perceived over-grazing by livestock as seen through increased erosion and degradation of riparian areas. Many also stated that water rights information was lacking in the Draft EIS and should be included as an issue.

Those opposing wilderness designation generally feel that there is enough or too much designated wilderness now and favor other uses for the WSA. Some oppose the restrictions on other uses imposed by wilderness designation.

The NPS (Dinosaur National Monument) supports wilderness designation for the Bull Canyon area. The Colorado Oil and Gas Conservation Commission favors non-wilderness for Bull Canyon in order to keep the area open to potential oil and gas exploration. No other federal, state, or local agencies gave WSA specific comments.

TABLE 4
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation Boundary Adjustment	All Wilderness Alternative	No Wilderness Alternative
Impacts on Wilderness Characteristics	Opportunities for solitude, primitive and unconfined recreation, high scenic quality, and the naturalness of the area would be protected on 13,700 acres.	Opportunities for solitude, primitive and unconfined recreation, high scenic quality, and the naturalness of the area would be protected on 12,197 acres.	The Wilderness characteristics of solitude and naturalness would be lost from approximately 8,000 acres of the WSA through combined effects of projected activities.
Impacts on Ranching Operations	Livestock forage production within the proposed area would remain at current levels of 920 AUMs and would remain at the current level of 826 AUMs within the WSA. Operating costs on grazing allotments within the WSA would be slightly higher where livestock operations could be accomplished reasonably without the use of vehicles.	Livestock production within the Bull Canyon WSA would remain at 826 AUMs. Operating costs on grazing allotments within the WSA would be slightly higher where livestock operations could be accomplished reasonably without the use of vehicles.	Livestock forage production would increase by about 18 percent of 150 AUMs to a total 976 AUMs. Operating costs associated with range improvement projects would remain at current levels because vehicle use would be allowed.
Impacts on Recreation Use and Quality	Recreation use levels in the proposed wilderness area are expected to increase from 700 visitor days to 850 days per year. Opportunities for primitive and unconfined recreation would remain unchanged in a natural setting.	Recreation levels in the proposed wilderness area are expected to increase from 700 visitor days to 850 visitor days per year. Opportunities for primitive and unconfined recreation would remain unchanged in a natural setting.	Recreation use would increase from 700 to 850 visitor days per year. Primitive recreation opportunities would be degraded by the development of other resources.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation Boundary Adjustment	All Wilderness Alternative	No Wilderness Alternative
Impacts on Water Quality	Since no surface-disturbing activities would occur under the proposed action, there would be no change or impact to water quality.	Since no surface-disturbing activities would occur under the proposed action, there would be change or impact to water quality.	There would be an increase in sediment yield of up to 20 percent from the WSA in the short term, although there would probably be a long-term decrease of about 3 percent. The change in salts would be about half that of sediment. This would be an immeasurably small short-term contribution to, or long-term decrease in, sediment and salts in the White river. The long-term changes are well within the natural variation of up to 25 percent.
Impacts on Big Game Species (Populations and Habitat) and Eagles	Wildlife habitat would remain in present conditions. Animal numbers of 170 deer, 10 elk, and 2 pair of golden eagles would remain unchanged.	Wildlife habitat would remain in present conditions. Animal numbers of 170 deer, 10 elk, and 2 pair of golden eagles would remain unchanged.	There would be an increase of about 15 deer (to a total of 185) and 2 elk (to a total of approximately 12) currently using the WSA. No impacts to golden eagles or other raptors are anticipated because they would be protected.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	Boundary Adjustment Alternative	All Wilderness Alternative
Impacts on Mineral Exploration and Production	The area (13,700 acres) would be closed to mineral entry. The low potential for exploration and development of oil and gas would be precluded. No subsurface geologic data would be gained.	The area (12,297 acres) would be closed to mineral entry. The low potential for exploration or development of oil and gas would be precluded. No subsurface geologic data would be gained.	The area (12,297 acres) would be open to leasing, exploration, and development; geologic knowledge of the area would be increased. The low potential of the WSA for oil and gas production or development could be realized. No production or development is projected, however.
Impacts on Private Lands	Acquisition of the adjoining state lands and the 320 acres of private land would be pursued. Current grazing and wildlife habitat uses of these lands would continue.	Acquisition of the adjoining state lands and the 320 acres of private land would be pursued. Current grazing and wildlife habitat uses of these lands would continue.	No impact or change in ownership of the 320 acres of private land or on adjacent state land is anticipated. Grazing and wildlife habitat uses of these lands would continue.

BULL CANYON WILDERNESS STUDY AREA

Table 5
Estimated Cost of Acquisition of Non Federal Holdings Within Areas Recommended for Designation 1/

Legal Description (Prior to any Subdivision)	Total Acreage	Number of Owners 2/ (If Parcel has been subdivided)	Type of Ownership by Estate (Federal, State, Private, Other) (Surface Estate)	(Subsurface Estate)	Presently Proposed for Acquisition (Yes, No)	Preferred Method of Acquisition (Purchase, Exchange, Other)	Estimated Cost of Acquisition 3/ (Land Costs)	(Processing Costs)
T. 4 N., R. 104 W. Sec. 13 S1/2 S1/2 Sec. 24 N1/2 N1/2	320.00	4	Private	Private	Yes	Purchase	$8,000	$30,000
T. 4 N., R. 103 W., Sec. 16	640.00	1	State	State	Yes	Exchange	N/A	$8,000
T. 4 N., R. 104 W., Sec. 36	630.00	1	State	State	Yes	Exchange	N/A	$8,000
T. 5 N., R. 104 W., Sec. 36 S1/2	265.00	1	State	State	Yes	Exchange	N/A	$8.000

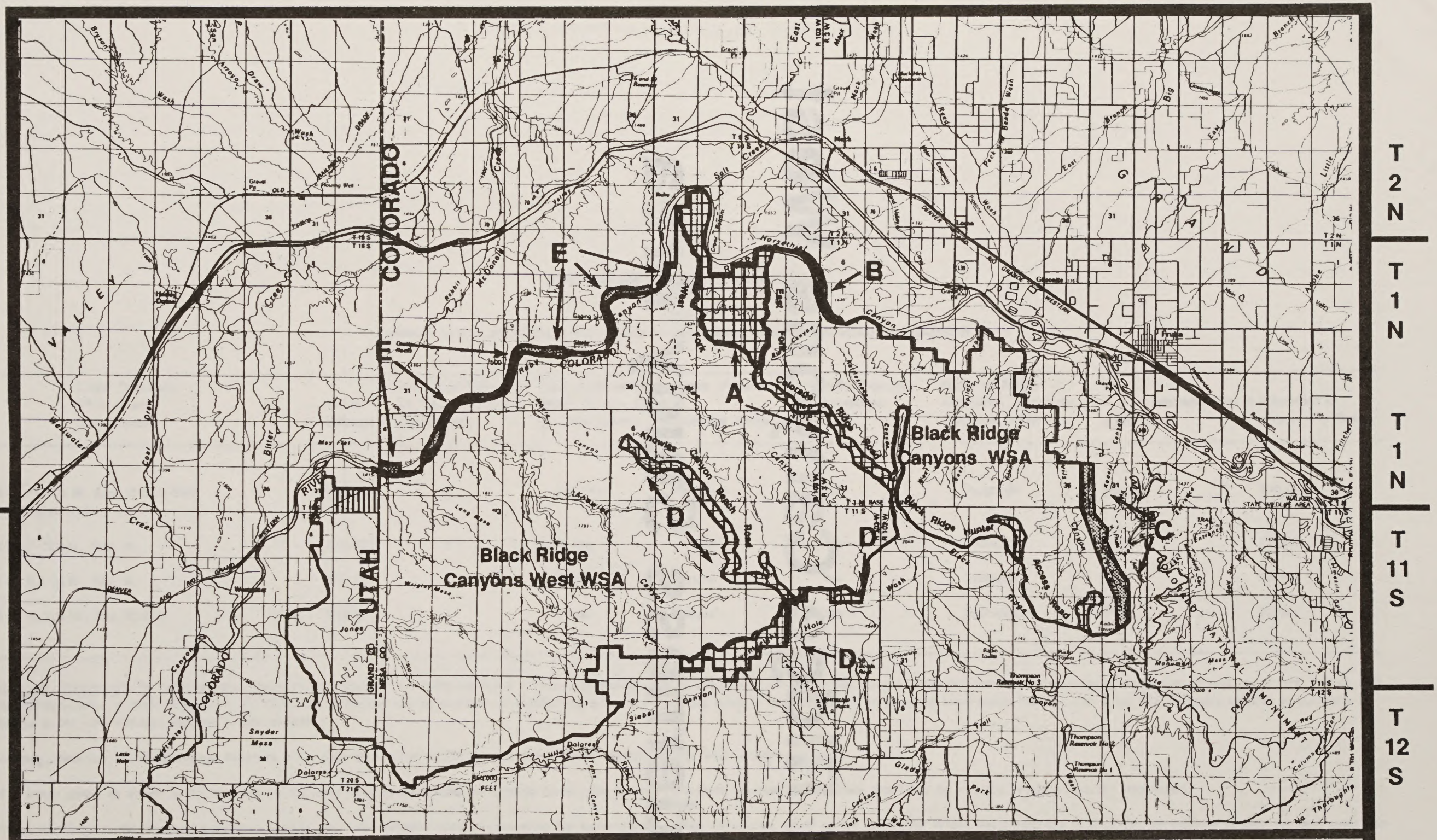
1/ Standard Disclosure: The estimated costs listed in this appendix in no way represent a Federal appraised value of the land or mineral estate, but are rough estimates based on sales or exchanges of lands or mineral estates with similar characteristics to those included in the WSA. The estimates are for purposes of establishing a range of potential costs to the government of acquiring non-Federal holdings and in no way represent an offer to purchase or exchange at the cost estimate included in this appendix.

Processing costs are all miscellaneous expenses other than land costs includnoig work month costs, appraisals, title work, escrow tests, etc.

2/ If a larger parcel as shown in the first column has been recently subdivided or is jointly owned, this column represents the number of owners that could be involved in any acquisition negotiation.

3/ Where exchange is the proposed acquisition method, only administrative costs of processing the exchange are shown. Land costs would not be applicable. Where direct purchase is proposed, an estimate of both the land costs and the processing costs are provided.

Black Ridge Canyons West Wilderness Study Area



RECOMMENDED FOR WILDERNESS

RECOMMENDED FOR NONWILDERNESS

LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS

SPLIT ESTATE

STATE

PRIVATE

Miles 1 0 1 2 3

N

BLACK RIDGE CANYON WEST WSA
PROPOSAL CO-070-113A
BLACK RIDGE CANYON WSA
PROPOSAL CO-070-113

Note: Except for the Rattlesnake Canyon Access Roads, all of the WSA's Cherry Stemmed roads would be part of the Wilderness Recommendation

January 1991

BLACK RIDGE CANYONS WEST WILDERNESS STUDY AREA

THE STUDY AREA: 54,265 acres

The Black Ridge Canyons West WSA (CO-070-113A, UT-060-116/117) is located in Mesa County, Colorado, and Grand County, Utah. The WSA is located 15 miles west of Grand Junction, Colorado and contains 54,265 ares of public lands administered by the BLM (see Table 1). The area is bounded on the north by private lands and the Colorado River shoreline, on the east by the Colorado Ridge Road, and on the south and west by boundary roads, the cherry-stemmed Knowles Canyon bench road and private lands. The WSA is shown on the map. Three extensive canyon systems (almost 1,000 feet deep) dissect this northern terminus of the Uncompaghre Plateau creating a spectacular setting. Pinyon-Juniper woodland and sagebrush parks are the dominant vegetation in the upland area while the canyons have scattered pinyon-juniper woodland in the broad, open areas and grassy meadows and riparian vegetation along canyon bottoms.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Grand Junction Resource Management Plan and Environmental Impact Statement (EIS) published in November, 1985. Three alternatives were analyzed in the EIS; all wilderness, no wilderness, and partial wilderness (53,617 acres in the WSA and 725 acres outside the WSA would be designated as wilderness while 648 acres would be released for uses other than wilderness). Under the partial wilderness alternative, the area to be designated as wilderness would be combined with the contiguous Black Ridge Canyons WSA to form one 73,937-acre wilderness. The Colorado Ridge Road separating the Black Ridge Canyons West WSA from the Black Ridge Canyons WSA would be closed (see Map).

TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

TOTAL ACREAGE	
WITHIN THE WSA	**ACRES**
BLM (surface and subsurface)	53,945
Split-Estate (BLM surface only)	320
In-holdings (State, Private)	0
Total	54,265
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	53,297
BLM (outside the WSA)	725
Split-Estate (within the WSA)	320
Total BLM land recommended for wilderness	54,342
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	648
Split-Estate	0
Total BLM land not recommended for wilderness	648
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

UTAH	
WITHIN THE WSA	**ACRES**
BLM (surface and subsurface)	4,880
Split-Estate (BLM surface only)	320
In-holdings (State, Private)	0
Total	5,200
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	4,880
BLM (outside the WSA)	0
Split-Estate (within the WSA)	320
Total BLM land recommended for wilderness	5,200
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	0
Split-Estate	0
Total BLM land not recommended for wilderness	0
In-holdings (State, Private)	0

COLORADO	
WITHIN THE WSA	**ACRES**
BLM (surface and subsurface)	49,065
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	49,065
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	48,417
BLM (outside the WSA)	725
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	49,142
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	648
Split-Estate	0
Total BLM land not recommended for wilderness	648
In-holdings (State, Private)	0

Source: BLM File Data

BLACK RIDGE CANYONS WEST WILDERNESS STUDY AREA

RECOMMENDATION AND RATIONALE

54,342 acres
(recommended for wilderness)

648 acres
(recommended for nonwilderness)

It is recommended that 54,342 acres of the Black Ridge Canyons West WSA be designated as wilderness and that this area would be combined with additional lands to be designated wilderness from Black Ridge Canyons WSA, and from outside the WSA's boundaries to form one 73,937-acre wilderness area. This includes 53,167 acres inside the Black Ridge Canyons West WSA and 725 acres (parcel D) from outside the WSA boundary which would be added to the wilderness recommendation. It is also recommended that 648 acres (parcel E) on the north side of the Black Ridge Canyons West WSA be released for uses other than wilderness. These WSAs are shown on the map. The environmentally preferable alternative would be to designate the entire 54,265 acres of the Black Ridge Canyons West WSA as wilderness since this would result in the least change to the natural environment over the long term.

The 725-acre parcel (parcel D) contiguous to the southeastern boundary of the Black Ridge Canyons West WSA did not qualify initially as part of the WSA because of a road separating it from the WSA. However, the wilderness recommendation includes closure and rehabilitation of this road. Therefore, this parcel was recommended for wilderness as part of the contiguous WSA recommended for wilderness.

The 53,617-acre area which makes up most of the WSA and the 725-acre contiguous parcel of land on the southern boundary of the WSA are recommended for wilderness designation because of their naturalness, outstanding scenery and landscape variety, spectacular geologic features, cultural and paleontological values, ecological diversity, and outstanding opportunities for solitude and primitive and unconfined recreation. Three extensive canyon systems and several minor canyons, seven known rock arches and other geologic features, changing vegetation patterns and the shoreline of the Colorado River create a spectacular setting for the recreationist.

Wilderness designation would provide for long-term protection of the area's outstanding opportunities for solitude and outstanding opportunities for hiking, backpacking, scenic viewing, nature study, and photography. The canyon systems provide the visitor with a variety of spectacular settings each with its unique features. The ruggedness of the WSA adds to the recreational experience by providing a high degree of challenge and risk.

There are approximately 59 miles of deep canyons that can be hiked. Hikers can also use the benches on either side of the canyons or enjoy the upland mesas. One very popular hike is the trip into Mee Canyon to view a huge cave created by the meandering stream. Floatboating on the Colorado River provides outstanding views of the WSA as well as access into its canyons.

Wilderness designation would protect cultural resources in the WSA from vandalism and unauthorized collection. Cultural resources within 0.5 mile of cherry-stemmed roads and trails would no longer be as vulnerable to destruction because roads and trails would be closed to recreational off-highway vehicle use. Similarly, wilderness designation would help protect fossils from vandalism and unauthorized collection but this would also preclude large scale scientific excavations.

Wilderness designation would preserve an area of valuable wildlife habitat. This area provides habitat for desert bighorn sheep, deer, mountain lion, and bald and golden eagles. There were about 60 desert bighorn sheep in the WSA in 1989.

The four parcels of land (parcel E) along the northern boundary of the WSA which are not recommended for wilderness are shown on the map. These parcels, consisting of 648 acres on the north side of the Colorado River, are recommended for release for purposes other than wilderness because the physical separation of these lands from the remainder of the WSA south of the river would make them difficult to manage as wilderness.

No major manageability problems or resource conflicts would result from wilderness designation. Wilderness designation would preclude excavations of large fossils but no large scale excavations are expected to be proposed. The WSA contains 18 unpatented mining claims inside the area recommended for wilderness. According to the U.S. Geological Survey (USGS) and the U.S.Bureau of Mines (USBM) report, the development potential for these mining claims and

for the remainder of the WSA is projected to be low because the area has a low mineral resource potential. There are no oil and gas leases in the area recommended for wilderness. The USGS and USBM report for the area states that development potential for oil and gas is low based on the lack of a stratigraphic section favorable for oil and gas occurrence.

The area recommended for wilderness contains portions of 5 grazing allotments totalling 3,714 animal unit months (AUMs). Livestock operators use motorized vehicles five times a year in the WSA to monitor and move livestock and maintain reservoirs.

CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

Naturalness

The Black Ridge Canyons West WSA is predominantly natural with negligible human imprints. The WSA is characterized by a high east-west ridgeline which is dissected by 3 extensive canyon systems that drain north into the Colorado River, the northern boundary of the WSA. These canyons cut deeply (about 1,000 feet) into the northern, sloping edge of the Uncompaghre Plateau creating extreme topographic variety between the mesa tops and the canyon bottoms. Each canyon is characterized by a deep main canyon with several side canyons. There are approximately 59 miles of canyons in this WSA.

An outcropping of precambrian granite occurs in the bottoms of each canyon. Spectacular waterfalls and pools occur in the granite due to its high degree of resistance to erosion. The canyons vary from narrow chasms to more open canyons which are up to 0.5 mile wide. Natural arches and amphitheater-like alcoves occur in these canyons.

Situated between each of the canyons is a mesa sloping downward toward the Colorado River. The mesas vary topographically from large, relatively flat to areas with highly dissected ravine systems with hillocks interspersed between drainages. These mesas terminate in cliffs above the Colorado River resulting from fault lines that roughly parallel the course of the river.

Vegetation within the canyon bottoms consists of a combination of grassy meadows and sparse stands of pinyon-juniper woodland. Isolated stands of cottonwood trees and other riparian species such as willows, river birch and box elder can be found along the drainages. Vegetation on the mesas consists of moderately dense stands of pinyon-juniper woodland. Flatter areas with well-developed soils on the mesas typically consist of big sagebrush meadows with a scattering of grasses.

The canyon systems are primarily free of any human imprints and appear to be affected by the forces of nature. The imprints on the mesa include fence lines, stock reservoirs, a rock quarry and trails. All of these imprints, because of location and screening, have a minor effect on the naturalness of the WSA. The mesas also appear to be affected primarily by the forces of nature.

The pinyon-juniper woodland, sagebrush and riparian vegetation types in this WSA provide for a variety of wildlife including deer, mountain lion, bighorn sheep and bald and golden eagles. Bald eagles winter in the area and are present every day from mid-December through mid-March along Ruby Canyon. One pair of peregrine falcons nests in the WSA and undoubtedly hunt the WSA. Cottonwood trees that grow along the Colorado River are an important part of the raptor habitat.

The Colorado River endemic fishes can all be found in the Colorado River at the north edge of the WSA. The Colorado River squawfish and the candidate species, razorback sucker, are the two species of primary concern. Golden eagles and canyon tree frogs are sensitive species that are found here. The bird species, Scott's oriole, gray vireo, and Cassins kingbird are also found here.

Solitude

The Black Ridge Canyons West WSA provides outstanding opportunities for solitude. the number of canyon systems allow visitors to disperse throughout the WSA without concentrating people into certain settings. Large side canyons and amphitheater-like alcoves allow visitors to isolate themselves from the main canyons. Opportunities for solitude within a single canyon are further accentuated by isolation provided by the benches at various levels above the canyons. The relatively broad expanses on the mesas offer additional outstanding solitude in that visitors can be widely dispersed. Excellent topographic and vegetative screening on the mesas and the large size and configuration of

the WSA all enhance outstanding opportunities for solitude.

Motorized boating use along 7 miles of the Colorado River creates noise that primarily affects visitors along the river but has minimal effect on recreationists in the remainder of the WSA because of the muffling effect of the intervening topography.

Because of its small size, the 725-acre parcel of land on the southern boundary of the WSA does not possess outstanding opportunities for solitude. However, when considered with the adjacent WSA, the area as an extension of the WSA shares its outstanding opportunities for solitude.

Primitive and Unconfined Recreation

The Black Ridge Canyons West WSA provides outstanding opportunities for primitive and unconfined recreation in close proximity to the Grand Junction area (population 85,000). The WSA's outstanding scenery and landscape variety, interesting geologic features, three extensive canyons (totalling 59 miles), the Colorado River, and cultural and paleontological resources contribute to outstanding opportunities for primitive recreation in the WSA.

Topographic diversity, unusual geologic features such as rock arches, spires and windows, and intermittent water courses all appeal to hikers. Outstanding opportunities for hiking are enhanced by the geologic features such as the giant cave in Mee Canyon. Many visitors float the Colorado River for the purpose of gaining access into the canyons or for fishing. Other activities in the WSA include picnicking, camping, viewing outstanding scenery, horseback riding, deer hunting, bird watching, and rockhounding.

Special Features

The WSA possesses outstanding geological, paleontological, archaeological, and ecological values. Erosion has exposed sedimentary strata and a precambrian bedrock of schist, gneiss, and granite covering a period of geologic history dating back 600 million years. Dark precambrian schist, gneiss and granite which are laced with pegmatite dikes twist along the canyon floors. Seven arches, natural amphitheaters, various sized alcoves, sheer canyon walls, gigantic boulders and talus slopes all attest to the ongoing forces of erosion working on the canyons and mesas.

The unit also contains significant paleontological resources. The Burro Canyon Formation in this WSA has produced a 115 to 120 million year old sycamore, which may be among the world's oldest known flowering plants. There is also a high potential for significant fossils such as dinosaurs to be found in the Morrison Formation outcrops in this WSA.

Evidence of habitation by the Desert Archaic, Fremont and Ute Indians occur throughout the WSA and represent 10,000 years of history and pre-history. Sites include overhangs, rock art, and open camps.

Bald eagles winter in the WSA and are present every day from mid-December through mid-March. A pair of peregrine falcons nest just inside the WSA and undoubtedly hunt the WSA.

The Colorado River which forms part of the northern boundary of the WSA has been recommended for scenic designations under the Wild and Scenic Rivers Act.

Diversity in the National Wilderness Preservation System

Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of this WSA would add an outstanding representative of the juniper-pinyon woodland of the Colorado Plateau Province to the NWPS but would not add a new ecosystem or landform. This ecosystem is currently represented by only one area in Colorado and 11 in the NWPS. Although there are 17 other WSAs representing this ecosystem in Colorado, the Black Ridge Canyons West WSA has become one of the most popular in the region because of its spectacular setting and interesting geologic features. This information is summarized in Table 2.

Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers:

The Black Ridge Canyons West WSA is within a 5-hour drive of two major population centers and within 1-hour of Grand Junction, the largest metropolitan area on the western slope of Colorado with a population of about 85,000 residents. Table 3 summarizes the number and acreage of designated areas and other BLM study areas within a 5-hour drive of these population centers.

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	AREAS	ACRES	AREAS	ACRES
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Juniper-Pinyon Woodland	11	1,401,745	85	2,142,602
COLORADO (COLORADO PLATEAU PROVINCE)				
Juniper-Pinyon Woodland	1	8,105	17	293,837

Source: BLM File Data.

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

	NWPS AREAS		OTHER BLM STUDIES	
POPULATION CENTERS	AREAS	ACRES	AREAS	ACRES
Salt Lake City-Ogden, Utah	11	685,088	42	1,826,904
Provo-Orem, Utah	12	730,088	52	2,307,031

Source: BLM File Data.

Balancing the geographic distribution of wilderness areas:

The Black Ridge Canyons West WSA would contribute to balancing the geographic distribution of areas within the NWPS. The nearest designated wilderness areas are about 2 hours from the Black Ridge Canyons West WSA. The Sewemup Mesa WSA (18,835 acres) and the Dominguez Canyon WSA (73,888 acres) are both recommended for wilderness and are both within 1.5 hours of the Black Ridge Canyons West WSA.

Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The Black Ridge Canyons West WSA can be managed to maintain wilderness values. There would only be some minor manageability problems as discussed under the Recommendation and Rationale section.

Energy and Mineral Resource Values

The USGS and USBM prepared a mineral assessment of the Black Ridge Canyon West WSA in 1988. There is a low mineral resource potential in the WSA. The 18 existing claims in the WSA were filed in January of 1988. The development potential for the mining claims is projected to be low because the area has a low mineral resource potential. Much of the shoreline along the river is considered to have a high resource potential for placer deposits. There are no claims within this area and the area has been withdrawn from mineral entry; therefore, the development potential is considered low. There are no oil and gas leases in the Black Ridge Canyons West WSA. The development potential for oil and gas is low based on the lack of a stratigraphic section favorable for oil and gas occurrence.

Impacts on Resources

Table 4 summarizes the comparative impacts for the three alternatives considered for this WSA.

Local Social and Economic Considerations

Designation of the Black Ridge Canyons West WSA as wilderness would incrementally help to increase recreation use in the Grand Junction area. Greater public awareness of this WSA would also draw wilderness users from outside west-central Colorado. Wilderness use after designation is projected to grow from 8,800 to 16,200 visitor days within 10 years. This increase would generate some increase in local income and although not large, could be noticed in the Grand

Junction area. These economic benefits to the Grand Junction area could be even more noticeable if all areas proposed for wilderness in west-central Colorado became wilderness.

Designation of most of the Black Ridge Canyons West WSA as wilderness would probably result in the loss of a few unpatented mining claims in the WSA. Very few claims are projected to have any assessment work done on them. There is only a low mineral potential for development.

Summary of WSA Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Comments received during the inventory process and early stages of the EIS were used to develop issues and alternatives for analysis.

During the formal review of the Draft EIS, a total of 51 comments were received specific to the Black Ridge Canyons West WSA. Twenty of these comments were oral testimony received at public hearings. There were 48 comments in favor of wilderness designation and 3 comments against wilderness designation. Many of the commenters had visited this WSA and discussed its special features and outstanding opportunities for solitude and primitive and unconfined recreation. Some commenters stated that the scenic, geologic, recreational, and archaeological resources of this unit would significantly enhance the NWPS.

Two commenters opposing wilderness designation wanted trails in the WSA and boundary roads to be left open in the area to maintain good motorized access for rockhounding. One commenter opposed wilderness for the WSA because "it was too close to town".

The Mesa County Commission commented on the Draft EIS stating that the proposed action to designate the Black Ridge Canyons West WSA as wilderness "seemed reasonable and consistent" with the county's land use plans. Comments received from the state of Colorado's Department of Natural Resources supported the Draft EIS on wilderness recommendations but did not specifically reference the Black Ridge Canyons West WSA. No other federal, state, or local agency commented on the Draft EIS.

TABLE 4
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation Combined WSAs	All Wilderness Alternative	No Wilderness Alternative
Impacts on Wilderness Values	Wilderness designation would provide long-term legislative protection on 53,222 acres. Wilderness values would not be protected on 1,120 acres from intermittent sights and sounds of motorized boating on 7 miles of the Colorado River (0.25 mile influence zone).	Wilderness designation would provide long-term legislative protection on 51,545 acres. Wilderness values would not be protected on 2,720 acres subject to intermittent sights and sounds of recreational off-highway vehicles on 10 miles of roads and motorized boating on 7 miles of the Colorado River.	Management of a portion of the WSA (50,260 acres) as Black Ridge Canyons Recreation Lands would maintain wilderness values on about 45,000 acres centered on the canyons. Approximately 900 acres of cryptogamic soil area would lose its naturalness from yearly herding by cattle over 10 years. Disc-plowing and seeding of 400 acres would impair naturalness in the WSA for up to 3 years. Recreational off-highway vehicles traveling on 15 miles of roads and trail and motor boats traveling on 7 miles of the Colorado River would impair wilderness values on 4,320 acres over time.
Impacts on Paleontological Escavations and Study	Wilderness designation would help protect fossils from vandalism and unauthorized collection but would preclude excavations of large fossils. This is considered to be a minor impact since no large-scale excavations are expected to be proposed. Allowing six non-impairing excavations would allow scientists to excavate small fossils.	Wilderness designation would help protect fossils from vandalism and unauthorized collection but would preclude excavation of large fossils. Allowing six nonimpairing excavations would allow scientists to excavate small fossils. This is considered a minor impact since no large-scale excavations are expected to be proposed.	Allowing six non-surface disturbing excavations would produce small fossils that would add to our knowledge of the area. Leaving 10 miles of roads and 5 miles of trail open to recreational OHV 's would make fossils vulnerable to vandalism and unauthorized collection. Fossils within 0.50 mile of these roads and trails would be vulnerable.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

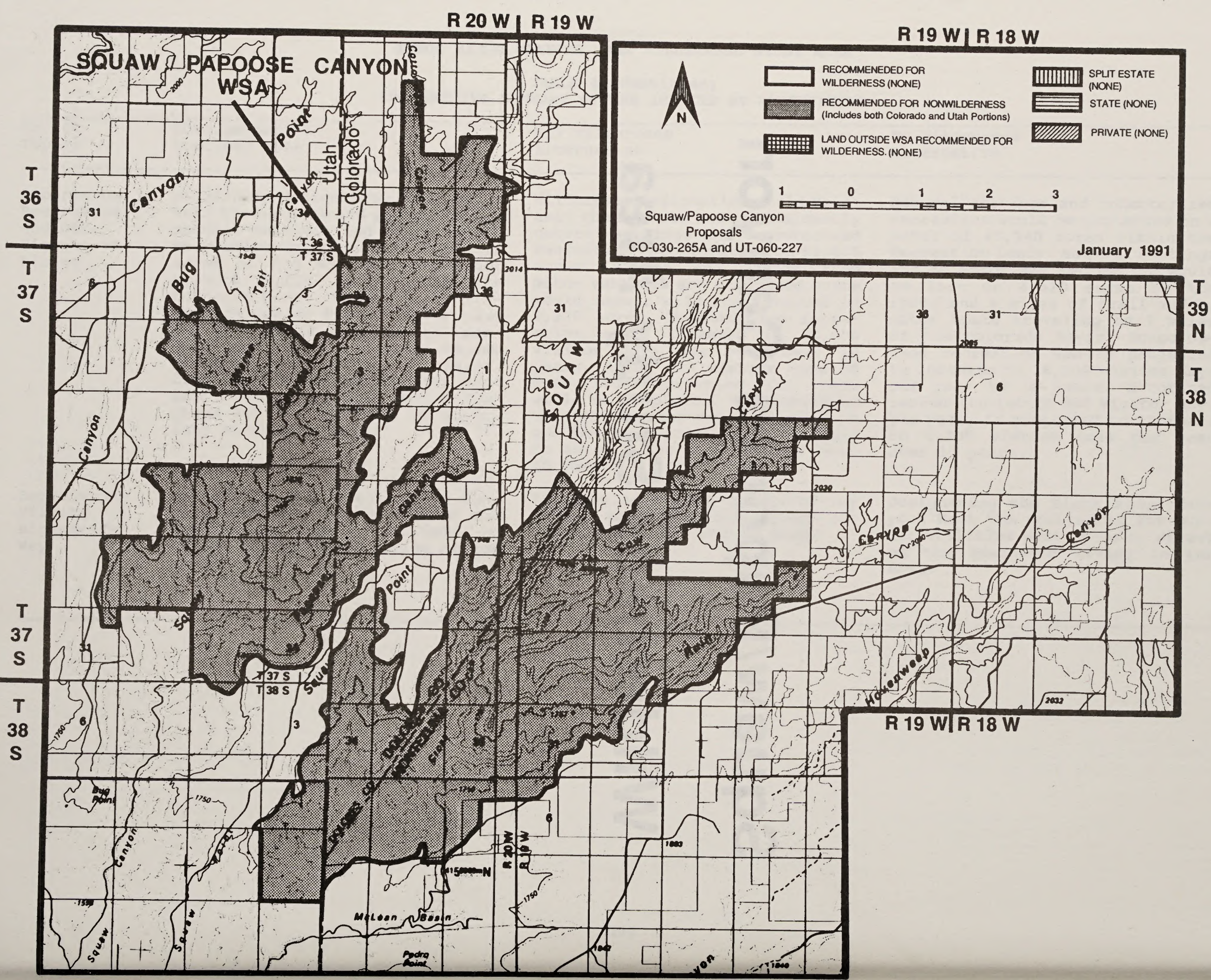
Impact Topics	Recommendation Combined WSAs	All Wilderness Alternative	No Wilderness Alternative
Impacts on Wildlife Habitat and Populations	Wilderness designation would protect about 52,822 acres of wildlife habitat. Wildlife habitat would be degraded on 1,120 acres from sights and sounds of motorized boats traveling on 7 miles of the Colorado River. It would also continue to be degraded on 400 acres proposed for disc-plowing and seeding under the No Wilderness Alternative. Without the project, the carrying capacity for deer may be reduced by up to 1,000, reducing the annual carrying capacity by up to 60 deer.	Wilderness designation would protect about 51,145 acres of wildlife habitat. Wildlife habitat would continue to be degraded on 1,600 acres from the sights and sounds of vehicles traveling on 10 miles of road and on 1,120 acres along the Colorado River. It also would continue to be degraded on 400 acres proposed for disc-plowing and seeding under the No Wilderness Alternative. Without the project, the carrying capacity for deer may be reduced by up to 1,000 deer, reducing the annual carrying capacity by up to 60 deer.	Management of the area as Recreation Lands would protect about 49,945 acres of wildlife habitat. Habitat on 6,400 acres would be degraded by the sights and sounds of motorized vehicles on 10 miles of roads and 5 miles of trail and by motor boats on 7 miles of the Colorado River. Disc-plowing and seeding on 400 acres of critical deer winter range would improve the range and maintain 60 deer in the area's annual carrying capacity.
Impacts on Cultural Resources	Wilderness designation would protect cultural resources on about 54,000 acres of Black Ridge Canyons West from vandalism and unauthorized collection. Data from cultural sites on 20 acres would be recovered or protected.	Cultural resources on 3,200 acres would be vulnerable to vandalism and unauthorized collection. Data from cultural sites on 20 acres would be recovered or protected. Cultural resources on the remaining 51,045 acres would be protected.	Cultural sites on 6,400 acres would be vulnerable to vandalism and unauthorized collection. Data from cultural sites on 436 acres would be recovered or protected. Cultural resources on 47,865 acres would remain largely undisturbed.

TABLE 4 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation Combined WSAs	All Wilderness Alternative	No Wilderness Alternative
Impacts on Recreation and Off-Highway Vehicles	Wilderness designation would maintain the natural and predominantly natural settings and nonmotorized recreation opportunities on 53,222 acres of the WSA but would not protect 1,120 acres along the Colorado River. Nonmotorized recreation use of 8,800 visitor days per year would increase (10 percent per year) to about 20,600 visitor days within 10 years. Closing 10 miles of boundary road and 5 miles of trail would displace 950 visitor days of motorized recreation use.	Wilderness designation would Maintain the natural and predominantly natural settings and nonmotorized recreation opportunities on 51,545 acres. Sights and sounds from motor vehicles and motorized boats would impair wilderness values on 2,270 acres. Nonmotorized recreation would increase to 20,600 visitor days per year over 10 years. About 500 visitor days of motorized recreation per year would be displaced. The motorized use (450 visitor days per year) on the boundary road would increase to about 1,050 visitor days over 10 years.	Natural settings and nonmotorized recreation would be protected on a total of 45,940 acres within the Recreation Lands. Natural settings and nonmotorized recreation would be lost on 4,320 acres by the roads and 5 miles of trail and by motor boats traveling on 7 miles of the Colorado River. Nonmotorized recreation use is projected to increase to 16,200 visitor days per year in 10 years. Motorized recreation (about 950 visitor days per year) is projected to increase to 1,700 visitor days per year over 10 years.
Impacts on Utility Rights-of-Way	Designating the Black Ridge Canyons West WSA as unsuitable for public utilities would have no effect on residents living in the area.	Prohibiting utility rights-of-way in the WSA would not affect the residents in the nearby area.	Designating the Black Ridge Canyons West WSA unsuitable for public utilities would have no effect on the residents living in the area.

Squaw/Papoose Canyon

Wilderness Study Area


SQUAW / PAPOOSE CANYON WSA
R 20 W
R 19 W
R 18 W
T 36 S
T 37 S
T 38 S
T 39 N
T 38 N
RECOMMENEDED FOR WILDERNESS (NONE)
RECOMMENDED FOR NONWILDERNESS (Includes both Colorado and Utah Portions)
LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS. (NONE)
SPLIT ESTATE (NONE)
STATE (NONE)
PRIVATE (NONE)
1 0 1 2 3
Squaw/Papoose Canyon Proposals
CO-030-265A and UT-060-227
January 1991
Utah
Colorado
Bug Point
Squaw Point
Douglas Pass
McLean Basin
Pedro Point
Hackberry Canyon
Horsethief Canyon

SQUAW/PAPOOSE CANYON WILDERNESS STUDY AREA

THE STUDY AREA: 17,682 acres

The Squaw/Papoose WSA (CO-030-265A and UT-060-277) is located in Dolores County, Colorado (4,611 acres) and San Juan County, Utah (6,676 acres). The area is approximately 12 miles southwest of Dove Creek, Colorado, 5 miles west of Lowry Pueblo Ruins National Historic Landmark and about 8 miles north of Hovenweep National Monument. There are no inholdings in this WSA; all 11,287 acres are BLM (see Table 1). The area centers on Squaw and Papoose Canyons and the narrow mesa that separates the two canyons. The boundary extends southwest, down-canyon to the point where a road visually impacts the area and Utah State land is encountered. Boundaries extend north and east, up-canyon only to the point in both canyons where oil and gas pads, roads or private property and associated development and agriculture are encountered. For the most part, lateral boundaries are the canyon walls. The WSA is surrounded by a mixture of public and private land. The area is shown on the map.

The topography of the WSA includes portions of two main canyons (Squaw, Papoose) and several smaller side drainages. The perennial stream of Squaw Canyon enters the WSA at 6,400 feet and the intermittent Papoose enters at 6,200 feet. The canyon/stream systems join and leave the WSA as one perennial drainage at 5,300 feet. The relatively flat plateau through which these canyons are cut has a gentle southwest down-tilt from its 6,600 feet elevation at the northeast boundary of the WSA. Numerous ledges, rock outcrops, and cliffs are exposed in the stair-stepped canyons which are 600 to 700 feet deep for most of the WSA. Vegetation is thick pinyon pine-juniper woodland on the slopes and canyon rim, with sage parks and riparian growth along the canyon bottom. Also present in Squaw/Papoose Canyon WSA are numerous and significant archaeological sites related to the Anasazi culture--communities of prehistoric farmers who lived in earthen and stone structures, 6-20 centuries ago.

TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	11,287
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	11,287
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	11,287
Split-Estate	0
Total BLM land not recommended for wilderness	11,287
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

UTAH	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	6,676
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	6,676
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	6,676
Split-Estate	0
Total BLM land not recommended for wilderness	6,676
In-holdings (State, Private)	0

COLORADO	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	4,611
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	4,611
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	4,611
Split-Estate	0
Total BLM land not recommended for wilderness	4,611
In-holdings (State, Private)	0

Source: BLM File Data

The WSA was studied under section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the San Juan/San Miguel Planning Area Final Wilderness Environmental Impact Statement published November, 1990. Three alternatives were analyzed in the EIS: all wilderness (11,287 acres), partial wilderness (9,933 acres included and 1,354 acres deleted), and a no wilderness alternative which is the recommendation of this report.

RECOMMENDATION AND RATIONALE

0 acres
(recommended for wilderness)

11,287 acres
(recommended for nonwilderness)

The recommendation is to not designate Squaw/Papoose Canyon WSA as wilderness and to release the area for uses other than wilderness. The all wilderness alternative is the environmentally preferable alternative since its implementation would result in the least change to the natural environment over the long term.

The primary reason for the no wilderness recommendation is the existence of 6 oil and gas leases dating from before the FLPMA of 1976 (pre-FLPMA oil and gas leases). Pre-FLPMA leases are not subject to the regulations that FLPMA created and therefore lease holders could develop these leases by building a road to, drilling from, and occupying a drill pad, all on the ground-surface of the lease. These six leases comprise 1,586 acres or 14 percent of the total acreage in the WSA. The leases are consolidated by unit agreements with producing leases outside the WSA - "held by production" - they will not expire as long as other wells in the unit agreement are producing. Even though the leases are held by production and extensive seismic exploration has been done in the WSA, no development of these leases has occurred, even in years of high oil and gas prices. Squaw/Papoose is not a Known Geologic Structure (KGS); an area of known production of oil and gas. It may be that even if oil and gas are present, profitable recovery is not possible, but it cannot be assumed that these leases will never be developed.

Because the leases are pre-FLPMA, and "no surface occupancy" stipulations cannot be imposed, management to preserve the wilderness characteristics of the Squaw/Papoose WSA would be complex, difficult, and expensive. It is estimated that a total of 31 acres of surface disturbance in 1 to 2-acre scattered parcels (drill pads access roads) would occur if all 6 leases were developed. Some of the drill pads might be located within the canyon itself which would visually impact a large area, not just the directly disturbed small parcels. Solitude, naturalness, and opportunity for primitive and unconfined recreation would all be impacted in an estimated 410 acres of the WSA because of the sights and sounds of well site construction.

Under the current management plan for the Colorado portion of the WSA, BLM does require that there be no long-term visual impairment of the area by lease development. Because of the rugged, rocky topography and old growth pinyon-juniper woodland, total and acceptable reclamation can be a long and expensive process requiring great effort by both the lease holder and BLM. As a result of these stringent restrictions, the lease holder may find it to be more economical to use directional drilling (slant drilling) from outside the WSA boundary to hit a target under the WSA. It is estimated that 80 percent of the carbon dioxide, oil and gas reserves could be recovered using direction drilling techniques, given current technology and market conditions. But it cannot be assumed that directional drilling would be the method employed in any of the leases as this method is not actually stipulated in the pre-FLPMA lease agreement.

An additional reason for the no wilderness recommendation is that wilderness management of Squaw/Papoose would be made difficult by the inclusion in the WSA of several parcels of land (1,354 total acres) which are up on and extend away from the canyon rim on the periphery of the WSA. The wilderness inventory process identified roadless natural areas which resulted in the 11,287 acre Squaw/Papoose Canyon WSA. This roadless area included several undisturbed yet flat land parcels which extend away from the canyon rims and abut roads, chainings, and cultivated fields. These parcels have a lowered wilderness quality and an increased potential for management conflicts due to sights and sounds of road traffic, the working of farm machinery, and other peripheral non-wilderness uses such as trespass firewood cutting and illegal dumping.

CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

Naturalness

The Squaw/Papoose WSA is predominantly natural in character with negligible human imprints. The dominant natural feature of this area is the confluence of two deep, nearly parallel canyons (Squaw and Papoose), plus numerous smaller tributary canyons that have been cut by water-flow erosion into the Morrison Formation and Dakota Sandstone. The stair-step canyon slopes range in depth from 300 to 700 feet and are marked by shallow, rocky soils, numerous rock outcrops, and talus slopes. Sandstone cliffs and ledges line the canyon rims. Winding canyon bottoms support riparian vegetation including cottonwood, sedges, rushes, cattail, willow, tamarisk and various shrubs. Dense pinyon pine-juniper woodland dominate the canyon sides and rim with sage and shrub understory including mormon tea, mountain mahogany, rabbitbrush, cliffrose and antelope bitterbrush.

Although the ecosystem of Squaw/Papoose WSA is in some respects similar to that of other canyons in the region, when considered in the context of the surrounding lands, these WSA canyons take on a greater ecological significance. The plain-like highlands above the canyons were once covered by expansive pinyon-juniper forests, but most of that semi-desert forest habitat has been radically modified in the last century. Nearly all of the private land in the area is now cultivated for dryland farming of beans, wheat and alfalfa. Much of the public land has been chained--the pygmy evergreen forest removed in hopes of improving the range for domestic livestock grazing. The result has been the elimination of much of the natural flora in the region. The rugged, nearly inaccessible canyons in this area however, were left untouched and constitute refuges where indigenous flora and fauna are still abundant.

In addition, the riparian communities found in the canyon bottoms play a crucial role in arid ecosystems. They provide water and cover as well as a travel corridor for animals such as mule deer, that summer in higher country but winter in the canyons. Black bear, mountain lion, coyote, grey fox and bobcat also use these canyon refuges, some as home territory and others as seasonal range. The riparian plant communities also support a diversity of animals that would otherwise not exist in the area, such as shorebirds and passerine birds that nest in and migrate through the canyons and small mammals such as beaver, badger, and long-tailed weasel.

Rocky cliffs in the canyons offer nesting sites for raptors such as red-tailed and Cooper's hawks, various owls, golden eagles and prairie falcons. Two endangered raptors, the peregrine falcon and the bald eagle have been sighted in the WSA and, although neither nests there, it appears that falcons and wintering bald eagles do utilize habitat in the area. Squaw/Papoose contains potential habitat for the BLM sensitive and federal candidate species Astragalus naturitensis (Naturita milkvetch).

One old, eroded and impassable vehicle way and an old fence line are the only imprints of modern-man. These impacts are revegetating and are screened by the surrounding pinyon-juniper woodland--they do not significantly impair the naturalness of the area.

Solitude

Topographic and vegetative screening combine to provide outstanding solitude opportunities throughout the canyons of the WSA. The mesa-top parcels of the WSA (see Recommendation and Rationale), are undisturbed and therefore offer natural vegetation screening but because of the flat topography and nearness to heavily impacted areas outside the WSA, do offer a wilderness quality and solitude of lesser value than that of the canyons. In the canyon, rugged terrain, stair-stepped deep winding canyons, numerous rock outcrops, and boulder strewn slopes provide topographic screening. The dense cover of pinyon-juniper on the slopes and canyon rims plus riparian growth in the canyon bottoms provide vegetative screening. The canyon-interior configuration of this WSA gives the visitor a feeling of isolation from the sights and sounds of human activity outside the canyon.

Primitive and Unconfined Recreation

The Squaw/Papoose Canyon WSA provides outstanding opportunities for primitive and unconfined recreation. The canyon bottoms provide routes for hiking or horseback riding; the area's geological and archaeological features and wildlife offer scenic subject matter for photography and sightseeing; the rugged canyon slopes are a challenge for climbing and rock scrambling; and hunting is a his-

toric use. Numerous secluded camping spots are available. From a mesa or cliff-top, the panorama is of the canyons themselves as well as other striking landforms in the area such as the Abajo Mountains to the northwest and Sleeping Ute Mountain to the southeast. The dark green woodland and contrasting tan, gray, and black stained cliffs provide a scenic backdrop for all recreation activities.

Special Features

Even though a very small percentage of the Squaw/Papoose acreage has been intensively inventoried, it is known that the area has a high archaeological site density. The area was heavily used by the Anasazi culture from A.D. 450 to 1300. Anasazi pueblo habitation sites, rock shelters, masonry granaries, tool processing sites and water control devices are numerous. These sites are isolated from access and therefore have not yet been impacted by collectors and vandals. The interpretative and scientific potential of this canyon is as yet untapped.

In Colorado, the Squaw/Papoose Canyon WSA is managed as a Cultural Resource Emphasis Area within the Anasazi Culture Multiple Use Area of Critical Environmental Concern (internal BLM designation, 1986). Management direction prioritizes the preservation and enhancement of the cultural resource properties found within the area. Emphasis is focused on measures needed to protect the soil, vegetation, scenic, cultural, and wildlife resources and thereby the entire cultural resource setting.

Geological formations are well exposed for scientific and educational study: the Summerville and Morrison Formations of the Jurassic Period outcrop and are overlain by Burro Canyon and Dakota Formations of the Upper Cretaceous. The Morrison is rich in fossilized wood, plant remains and fossil vertebrate bones. These values are important to many recreation users who note that such a combination of archaeological and educational values, scenic beauty and ruggedness can be found in few places.

Diversity in the National Wilderness Preservation System

Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of this WSA would not add a new ecosystem or landform to the NWPS. The WSA is in the Colorado Plateau Province (Bailey-Kuchler classification system) and contains pinyon-juniper woodland vegetation type (11,287 acres). The pinyon-juniper woodland ecosystem is represented by only one wilderness area in Colorado; that being in Mesa Verde National Park which is closed to public recreation; and one area in Utah (Box-Death Hollow). See Table 2.

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	AREAS	ACRES	AREAS	ACRES
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Pinyon-Juniper Woodland	11	1,401,745	85	2,142,602
COLORADO (COLORADO PLATEAU PROVINCE)				
Pinyon-Juniper Woodland	1	8,105	17	293,837

Source: BLM File Data.

Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers:

The Squaw/Papoose Canyon WSA is not within a 5-hour drive of a major population center (Standard Metropolitan Statistical Area).

Balancing the geographic distribution of wilderness areas:

The Squaw/Papoose Canyon WSA would contribute to balancing the geographic distribution of areas within the NWPS. The nearest designated wilderness area (Mesa Verde National Park Wilderness; 8,205 acres) is approximately 1.5 hours to the southeast. Mesa Verde Wilderness is not open to the public due to important archaeological values. Two and one-half hours to the east of Squaw/Papoose is Forest Service Lizard Head (41,189 acres) and Mt. Sneffels (16,210 acres) Wilderness Areas; areas of high mountain landform and ecosystem and thereby unavailable for most public use during winter and spring. Two hours to the north is the BLM Dolores River Canyon WSA which contains 29,415 acres recommended for wilderness designation. Because of its year-round accessibility and Colorado Plateau ecosystem, Squaw/Papoose Canyon WSA would expand and balance opportunities to attain diverse wilderness experiences.

Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The Squaw/Papoose Canyon WSA could be effectively managed to preserve its wilderness character yet complex and expensive management problems could occur in two areas: management conflicts associated with 6 pre-FLPMA oil and gas leases and management problems with the peripheral, flat land parcels (see Recommendations and Rationale). The Squaw/Papoose Canyon EIS included a partial wilderness alternative which would enhance the manageability of this WSA. This alternative discussed deleting the several flat-land parcels (1,354 total acres), conforming the WSA boundary to the more easily identifiable canyon rim and thereby enhancing the manageability of the area. Two of the six pre-FLPMA oil and gas leases are totally included within these peripheral parcels therefore deletion of these parcels would greatly reduce potential wilderness management problems associated with possible lease development. In addition, the then remaining four leases are in a very narrow section of the WSA which would allow for efficient reserve recovery using slant drilling from outside the WSA.

There are no other major manageability problems or resource conflicts which would result from wilderness designation. The entire WSA is BLM land; no inholdings. There are no patented mining claims within the WSA but there are 22 unpatented post-FLPMA mining claims, most likely for uranium. Since the GEM report for Squaw/Papoose Canyon shows only moderate favorability of uranium occurrence and no known deposits of uranium exist, and because these claims and all future claims are subject to FLPMA generated guidelines, site disturbance associated with access and development of these claims is unlikely (see Energy and Mineral Resource Values section below). The WSA contains portions of two grazing allotments administered in Utah and portions of three allotments administered in Colorado. There are approximately 455 animal unit months (AUMs) in use throughout the entire WSA and no range improvement projects have been proposed.

Energy and Mineral Resource Values

Squaw/Papoose Canyon energy and mineral resources were evaluated in "GEM Geological, Energy, and Minerals: Resource Assessment for Region 4, Colorado Plateau" - submitted to BLM by Mountain States Mineral Enterprises Inc. in May 1983, and the "Mineral Summaries", prepared for BLM by the U.S. Geological Survey and Bureau of Mines in February 1990, Extensive seismic testing has been done in and around the WSA; all in a nonimpairing manner mostly by helicopter or on foot.

Hydrocarbons (oil, gas, carbon dioxide, helium): No known deposits but a high potential that these resources could be found in the WSA; accessibility and economic potential are rated good (GEM page 111-7). There are no known deposits of coal in Squaw/Papoose WSA. There is a low potential that coal is present with accessibility and economic potential unknown.

Energy and related minerals (uranium and vanadium): No known deposits in the WSA with a moderate potential for existence; therefore, accessibility and economic potential are unknown.

Precious and base metals (copper, gold, silver, lead, zinc): No known deposits and no potential that deposits exist.

Clays and cut sandstone: No known deposits, but a high probability that deposits exist. However, accessibility and economic potential are listed at low to moderate.

In summary, there is no present production of any mineral, oil or gas within the WSA, although there are two producing oil wells near the WSA boundary. Existence and quantity of these resources is unknown but potential for occurrence is moderate to high.

Impacts on Resources

The comparative impacts table (Table 3) summarizes the effects on pertinent resources for the three alternatives considered for this WSA.

Local Social and Economic Considerations

Designation or nondesignation of this WSA as wilderness would have negligible impacts on local economic conditions. Social factors were not considered a significant issue in the study.

Summary of WSA Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Certain comments received during the inventory process and early stages of the Draft EIS were used to develop significant study issues and various alternatives for the ultimate management of those lands with wilderness values. Of the 27 public comments received during the inventory phase; 13 favored WSA designation and 14 were opposed to WSA designation. Of these 14, most pointed out impacts of man which they felt interfered with wilderness characteristics of the area. BLM used this information in eliminating impacted areas and developing boundaries which give the WSA its primarily natural character.

During formal public review of the Draft EIS, a total of 99 comments were received which specifically addressed this WSA--55 were written and 44 were oral statements received at public hearings. In general, 94 commenters supported wilderness designation and five favored releasing the area for other uses (no wilderness). Specific comments by those favoring wilderness designation centered on the preservation of archaeological values. Protection of ecological diversity and geologic beauty were also major concerns. Wildlife and saving a vanishing reserve of scientific and educational value for future generations were both mentioned in several comments.

Those opposing wilderness designation were concerned that wilderness would preclude mineral development and grazing or that the area does not have wilderness characteristics. No comments specifically addressing this WSA were received from Federal, state, or local agencies.

TABLE 3
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Wilderness Values	Wilderness values would remain largely unchanged on 10,846 acres under this alternative. However, surface disturbance (31 acres) and impacts from sights and sounds (410 acres) from seismic exploration and wildcat well development would diminish the wilderness values on these 441 acres.	Wilderness designation would provide long-term protection for wilderness values on 11,287 acres. Natural and supplemental values would be maintained by the restrictions to motorized recreational use and mineral development. There would be short-term impacts on 146 acres associated with seismic work and last drilling. However, these disturbances would be reclaimed and substantially unnoticeable after 2 years. Opportunities for solitude and primitive, unconfined recreation would be maintained because the anticipated increase in visitor use associated with wilderness designation is incidental.	Under this alternative, the wilderness values in the 9,933 acres designated as suitable for wilderness would be protected. There would be short-term impacts on 291 acres associated with seismic work and test well drilling. However, these disturbances would be reclaimed and substantially unnoticeable after 2 years. Opportunities for primitive, unconfined recreation would be preserved. The wilderness values in most of the remaining 1,354 acres designated as nonsuitable would be protected by the ORV closure. 655 acres of the remaining 1,354 acres designated as nonsuitable would be protected by the NSO stipulation. This area is expected to remain largely unchanged over the long-term.

TABLE 3 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

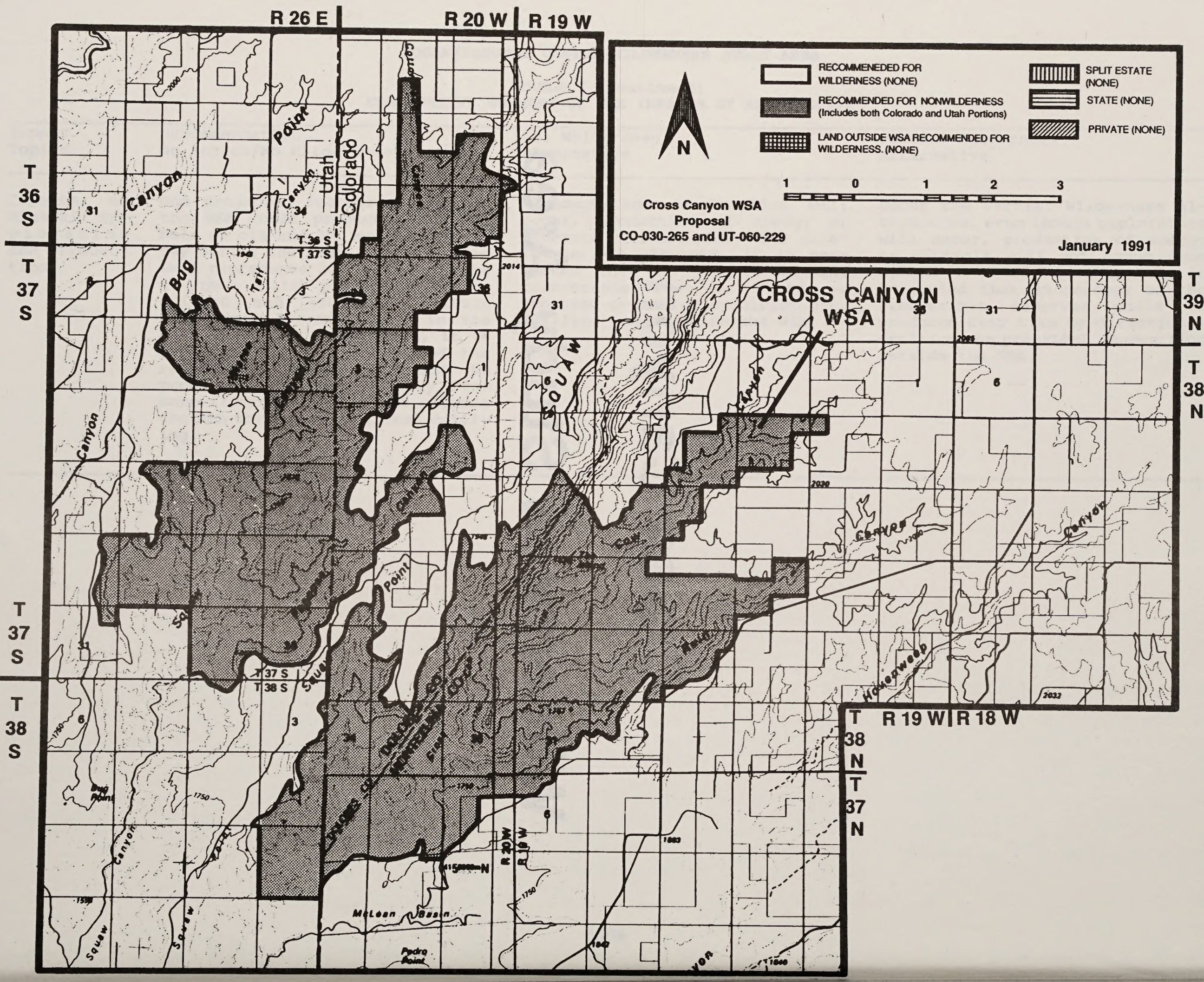
Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Cultural Resources	Under this alternative, the cultural resources in the Colorado portion of the WSA would be protected by provisions in the ACEC plan which provide for protection of all sites and stabilization or recovery of information from 84 sites. In addition, cultural resources in this area will be protected through increased knowledge and management presence, as well as by management restrictions on motorized vehicle use and by an NSO stipulation on 4,026 acres. Cultural resources on the remaining 6,676 acres in Utah are expected to remain largely unchanged.	Under this alternative, the cultural resources in the WSA would be protected by wilderness management and by the ACEC plan which provides for protection for all sites and stabilization or recovery of information from 84 sites. These protective measures would be further supported by the WSA-wide exclusion of motorized recreational use and by the mineral withdrawal. As such, this alternative would provide comprehensive protection for the cultural resources in the entire 11,287 acre WSA.	Under this alternative, cultural resources on 11,142 acres would be protected, either by wilderness designation or ORV closure. Cultural resources on the remaining 145 acres would remain largely unchanged.
Impacts on Recreational Opportunities and Use	Recreational use would remain at 400 user days per year under this alternative. Excellent opportunities for most back country recreational activities would continue to exist for most of the WSA.	Under this alternative, recreational use would increase slightly over a 3 to 5 year period. However, this increase would be so incidental that it would not affect the character of recreation use in this area. Over the long-term, excellent opportunities will be preserved for non-motorized, back country recreational activities by eliminating motorized recreational use and mineral development.	Under this alternative, recreational use would increase slightly over a 3 to 5 year period. However this increase would be so incidental that it would not affect the character of recreation use in this area. Over the long-term, excellent opportunities will be preserved for non-motorized recreational use.

TABLE 3 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Mineral Exploration and Production	One projected successful well in the WSA could produce about 200 bbls of oil and 800 mcf of gas per day during the next 20 years. This well represents 2.5 percent of the 40 new wells projected to be drilled and producible within Colorado's Paradox Basin in the next 20 years. In addition, it is projected that 75 percent of the recoverable reserves would be produced over time, mostly from more favorable well sites outside the WSA through directional drilling.	Although some exploration will occur, production of energy or minerals will not occur from within the WSA. However, it is projected that 60 percent of the recoverable reserves would be produced over time by directional drilling from outside the WSA.	Under the Partial Wilderness Alternative, even though exploration will occur, production of energy or minerals will not occur from within the WSA. However, it is projected that 65 percent of the recoverable reserves would be produced over time by directional drilling the pre-FLPMA leases from outside the WSA.

Cross Canyon

Wilderness Study Area


R 26 E
R 20 W
R 19 W
R 19 W
R 18 W
T 36 S
T 37 S
T 37 S
T 38 S
T 38 S
T 39 N
T 38 N
T 37 N
N
RECOMMENEDED FOR WILDERNESS (NONE)
RECOMMENDED FOR NONWILDERNESS (Includes both Colorado and Utah Portions)
LAND OUTSIDE WSA RECOMMENDED FOR WILDERNESS. (NONE)
SPLIT ESTATE (NONE)
STATE (NONE)
PRIVATE (NONE)
1 0 1 2 3
Cross Canyon WSA Proposal
CO-030-265 and UT-060-229
January 1991
CROSS CANYON WSA
Point
Canyon
Utah
Colorado
Bug Point
Squaw Canyon
McLean Basin
Pedro Point
Howeaweep
Canyon

CROSS CANYON WILDERNESS STUDY AREA

THE STUDY AREA: 12,588 acres

The Cross Canyon WSA (CO-030-265 and UT-060-229) is located in Dolores and Montezuma Counties, Colorado (11,580 acres) and in San Juan County, Utah (1,008 acres). The area is approximately 14 miles southwest of Cahone, Colorado, about 1 mile southwest of Lowry Pueblo Ruins National Historic Landmark, and 5 miles north of Hovenweep National Monument. There are no inholdings in this WSA; all 12,588 acres are BLM (see Table 1). The area centers on the Cross, Cow, and Ruin Canyon system. The boundary extends southwest, down-canyon to the point where two roads visually impact the area. Boundaries extend north and east, up-canyon only to the point in each of the three canyons where roads, mines, private agriculture and human activity are encountered. The WSA is surrounded by a mixture of public and private land. The area is shown on the map.

The topography of the WSA includes portions of three main canyons (Cross, Ruin, and Cow), which are the topographic continuation of the Cahone Canyon WSA, separated by previous oil and gas activity and uranium mining and exploration. The perennial streams of Cow and Ruin Canyon enter the WSA at elevations of between 6,200 and 6,400 feet, while Cross Canyon stream enters at 5,560 feet. The canyon/stream systems join and leave the WSA as one perennial drainage at 5,150 feet. The relatively flat plateau through which these canyons are cut has a gentle southwest down-tilt from its 6,500 feet elevation at the northeast boundary of the WSA. Numerous ledges, rock outcrops, and cliffs are exposed in the stair-stepped canyons which range in depth from 300 feet to 900 feet. Vegetation is thick pinyon pine-juniper woodland on the slopes and canyon rim, with sage parks and riparian growth along the canyon bottom. Also present in Cross Canyon WSA are numerous

TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

TOTAL ACREAGE	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	12,588
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	12,588
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	12,588
Split-Estate	0
Total BLM land not recommended for wilderness	12,588
In-holdings (State, Private)	0

Source: BLM File Data

TABLE 1 (Continued)
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA

UTAH	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	1,008
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	1,008
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	1,008
Split-Estate	0
Total BLM land not recommended for wilderness	1,008
In-holdings (State, Private)	0

COLORADO	
WITHIN THE WSA	ACRES
BLM (surface and subsurface)	11,580
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	0
Total	11,580
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	0
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Total BLM land recommended for wilderness	0
In-holdings (State, private)	0
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	11,580
Split-Estate	0
Total BLM land not recommended for wilderness	11,580
In-holdings (State, Private)	0

Source: BLM File Data

and significant archaeological sites related to the Anasazi culture--communities of prehistoric farmers who lived in earthen and stone structures, 6 to 20 centuries ago.

The WSA was studied under section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the San Juan/San Miguel Planning Area Final Wilderness Environmental Impact Statement (EIS) published in November 1990. Three alternatives were analyzed in the EIS: all wilderness (12,588 acres), partial wilderness (12,272 acres--the result of 933 acres deleted and 617 acres added from outside the WSA boundary), and a no wilderness alternative which is the recommendation of this report.

RECOMMENDATION AND RATIONALE

0 acres
(recommended for wilderness)

12,588 acres
(recommended for nonwilderness)

The recommendation is to not designate Cross Canyon WSA as wilderness and to release the area for uses other than wilderness. The all wilderness alternative is the environmentally preferable alternative since its implementation would result in the least change to the natural environment over the long term.

The primary reason for the no wilderness recommendation is the existence of 36 oil and gas leases dating from before the FLPMA of 1976 (pre-FLPMA oil and gas leases). Pre-FLPMA leases are not subject to the regulations that FLPMA created and therefore lease holders could develop these leases by building a road to, drilling from, and occupying a drill pad, all on the ground-surface of the lease. These 36 leases comprise 8,875 acres or 71 percent of the total acreage in the WSA. These 36 leases and much of Cross WSA are in the Sand Canyon Known Geologic Structure (KGS); an area of known production of oil and gas. The leases are consolidated by unit agreements with producing leases outside the WSA - "held by production" - they will not expire as long as other wells in the unit agreement are producing. Even though the leases are in a KGS and extensive seismic exploration has been done in the WSA, no development of these leases has occurred, even in years of high oil and gas prices. It may be that even if oil and gas are present, profitable recovery is not possible, but it cannot be assumed that these leases will never be developed.

Because the leases are pre-FLPMA, and "no surface occupancy" (NSO) stipulations cannot be imposed, management to preserve the wilderness characteristics of Cross Canyon WSA would be complex, difficult, and expensive. It is estimated that a total of 51 acres of surface disturbance in 1 to 2-acre scattered parcels (drill pads plus access roads) would occur if all 36 leases were developed. Some of the drill pads might be located within the canyon itself which would visually impact a large area, not just the directly disturbed small parcels. Solitude, naturalness, and opportunity for primitive and unconfined recreation would all be impacted in a large portion of the WSA because of the sights and sounds of well site construction.

Under the current management plan, BLM does require that there be no long-term visual impairment of the area by lease development. Because of the rugged, rocky topography and old growth pinyon-juniper woodland, total and acceptable reclamation can be a long and expensive process requiring great effort by both the lease holder and BLM. As a result of these stringent restrictions, the lease holder may find it to be more economical to use directional drilling (slant drilling) from outside the WSA boundary to hit a target under the WSA. As Cross Canyon widens near the Utah state line, directional drilling becomes less efficient; rigs drilling from the mesa tops outside the WSA cannot tap reserves under the canyon bottoms as the offset angle is too great. This leads to an estimate of 30 to 40 percent reserve recovery in the lower stretches of the WSA, yet it is estimated that 70 to 80 percent of reserves could be recovered in the WSA as a whole using this drilling technique. But it cannot be assumed that directional drilling would be the method employed in all 36 leases as this method is not actually stipulated in the pre-FLPMA lease agreements.

An additional reason for the no-wilderness recommendation is that wilderness management of Cross Canyon would be made difficult by the inclusion in the WSA of several parcels of land (933 total acres) which are up on and extend away from the canyon rim on the periphery of the WSA. The wilderness inventory process identified roadless natural areas which resulted in the 12,588 acre Cross Canyon WSA. This roadless area included

several undisturbed yet flat land parcels which extend away from the canyon rims and abut roads, chainings, and cultivated fields. These parcels have a lowered wilderness quality and an increased potential for management conflicts due to sights and sounds of road traffic, the working of farm machinery, and other peripheral nonwilderness uses such as trespass firewood cutting and illegal dumping.

CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

Naturalness

The Cross Canyon WSA is predominantly natural in character with negligible human imprints. The dominant natural feature of this area is the confluence of three deep canyons (Cross, Cow, and Ruin), plus numerous small tributary canyons that have been cut by water-flow erosion into the Morrison Formation and Dakota Sandstone. The stair-step canyon slopes range in depth from 300 to 900 feet and are marked by shallow, rocky soils, numerous rock outcrops, and talus slopes. Sandstone cliffs and ledges line the canyon rims. Winding canyon bottoms support riparian vegetation including cottonwood, boxelder, Russian olive, willow, tamarisk and various shrubs. Dense pinyon pine-juniper woodland dominates the canyon sides and rim with sage and shrub understory including mormon tea, mountain mahogany, rabbitbrush, cliffrose and antelope bitterbrush.

Cross Canyon broadens as it reaches Utah and the landform gradually changes from semi-desert canyon to a large eroded basin with badland-type formations. Vegetation thins as the low eroded hills support only sparse pinyon-juniper with scattered sage, rabbitbrush and grasses. The perennial stream of Cross Canyon retains its character in these lower reaches with dense cottonwood and riparian vegetation.

Although the ecosystem of Cross WSA is in some respects similar to that of other canyons in the region, when considered in the context of the surrounding lands, these WSA canyons take on a greater ecological significance. The plain-like highlands above the canyons were once covered by expansive pinyon/juniper forests, but most of that semi-desert forest habitat has been radically modified in the last century. Nearly all of the private land in the area is now cultivated for dryland farming of beans, wheat and alfalfa. Much of the public land has been chained--the pygmy evergreen forest removed in hopes of improving the range for domestic livestock grazing. The result has been the elimination of much of the natural flora in the region. The rugged, nearly inaccessible canyons in this area however, were left untouched and constitute refuges where indigenous flora and fauna are still abundant.

In addition, the riparian communities found in the canyon bottoms play a crucial role in arid ecosystems. They provide water and cover as well as a travel corridor for animals such as mule deer, that summer in higher country but winter in the canyons. Black bear, mountain lion, coyote and bobcat also use these canyon refuges, some as home territory and others as seasonal range. The riparian plant communities also support a diversity of animals that would otherwise not exist in the area, such as shorebirds and passerine birds that nest in and migrate through the canyons.

Rocky cliffs in the canyons offer nesting sites for raptors such as red-tailed and Cooper's hawks, various owls, golden eagles and prairie falcons. Two endangered raptors, the peregrine falcon and the bald eagle, have been sighted in the WSA and, although neither nests there, it appears that falcons and wintering bald eagles do utilize habitat in the area. Cross Canyon contains potential habitat for the BLM sensitive, federal candidate species *Astragalus naturitensis* (Naturita milkvetch). A 1989 baseline biological study of Cross Canyon found a previously unidentified species of fish which was given automatic BLM special protection status. The study also confirmed that this canyon system is the northern-most example of the Upper Sonoran ecosystem as documented by the identification of the gray hawk, desert spiny lizard, western ribbon snake and the Ord's kangaroo rat.

Three vehicle ways are the only imprints of modern-man. These ways are revegetating and are screened by the surrounding pinyon-juniper woodland--they do not significantly impair the naturalness of the area.

Solitude

Topographic and vegetative screening combine to provide outstanding solitude opportunities throughout the canyons of the WSA. The mesa-top parcels of the WSA (see Recommendation and Rationale this report) are undisturbed and therefore

offer natural vegetative screening but because of the flat topography and nearness to heavily impacted areas outside the WSA, do offer a wilderness quality and solitude of lesser value than that of the canyons. In the canyon, rugged terrain, stair-stepped deep winding canyons, numerous rock outcrops, and boulder strewn slopes provide topographic screening. The dense cover of pinyon-juniper on the slopes and canyon rims plus riparian growth in the canyon bottoms provide vegetative screening. The canyon-interior configuration of this WSA gives the visitor a feeling of isolation from the sights and sounds of human activity outside the canyon.

Primitive and Unconfined Recreation

Cross Canyon WSA provides outstanding opportunities for primitive and unconfined recreation. The canyon bottoms provide routes for hiking or horseback riding; the area's geological and archaeological features and wildlife offer scenic subject matter for photography and sightseeing; the rugged canyon slopes are a challenge for climbing and rock scrambling; and hunting is a historic use. Numerous secluded camping spots are available. From a mesa or cliff-top, the panorama is of Cross Canyon itself as well as other striking landforms in the area such as the Abajo Mountains to the northwest and Sleeping Ute Mountain to the southeast. The dark green woodland and contrasting tan, gray, and black stained cliffs provide a scenic backdrop for all recreation activities.

Special Features

Even though only 6 percent of the Colorado acreage has been intensively inventoried, it is known that the area has a high archaeological site density. The area was heavily used by the Anasazi culture as it flourished from A.D. 450 to 1300 and some sites suggest that paleo-man may have roamed these canyons as early as 10,000 B.C. Anasazi pueblo habitation sites, rock shelters, cliff dwellings, great kivas, towers and water control devices are numerous. These sites are isolated from access and therefore have not yet been impacted by collectors and vandals. Also unique to the canyon because of its ruggedness and remoteness are a large number of historic Indian and European sites. Numerous outlaw and sheep camps, Navajo habitations and old homesteads can be found along the canyon bottoms and steep slopes. The interpretative and scientific potential of this canyon is as yet untapped.

In Colorado, Cross Canyon WSA is managed as a Cultural Resource Emphasis Area within the Anasazi Culture Multiple Use Area of Critical Environmental Concern (internal BLM designation, 1986). Management direction prioritizes the preservation and enhancement of the cultural resource properties found within the area. Emphasis is focused on measures needed to protect the soil, vegetation, scenic, cultural, and wildlife resources and thereby the entire cultural resource setting.

Geological formations are well exposed for scientific and educational study: the Summerville and Morrison Formations of the Jurassic Period outcrop and are overlain by Burro Canyon and Dakota Formations of the Upper Cretaceous. The Morrison is rich in fossilized wood and plant remains as well as fossil vertebrate bones. These values are important to many recreation users who note that such a combination of archaeological and educational values, scenic beauty and ruggedness can be found in few places.

Diversity in the National Wilderness Preservation System

Assessing the diversity of natural systems and features as represented by ecosystems:

Wilderness designation of this WSA would not add a new ecosystem or landform to the NWPS. The WSA is in the Colorado Plateau Province (Bailey-Kuchler classification system) and contains pinyon-juniper woodland (11,588 acres) and Great Basin sagebrush (1,000 acres) vegetative zones. The pinyon-juniper woodland ecosystem is represented by only one wilderness area in Colorado; that being in Mesa Verde National Park and closed to public recreation, and one in Utah (Box-Death Hollow). The Great Basin sagebrush ecosystem is represented by two areas in the NWPS, neither of which are in Colorado and one being partially in Utah (see Table 2).

TABLE 2
ECOSYSTEM REPRESENTATION

	NWPS AREAS		OTHER BLM STUDIES	
BAILEY-KUCHLER CLASSIFICATION (PNV)	AREAS	ACRES	AREAS	ACRES
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Pinyon-Juniper Woodland	11	1,401,745	85	2,142,602
Great Basin Sagebrush	2	95,875	5	58,421
COLORADO (COLORADO PLATEAU PROVINCE)				
Pinyon-Juniper Woodland	1	8,105	17	293,837
Great Basin Sagebrush	0	0	4	57,541

Source: BLM File Data.

Expanding the opportunities for solitude or primitive recreation within a day's driving time (5 hours) of major population centers:

The Cross Canyon WSA is not within a 5-hour drive of a major population center (Standard Metropolitan Statistical Area).

Balancing the geographic distribution of wilderness areas:

The Cross Canyon WSA would contribute to balancing the geographic distribution of areas within the NWPS. The nearest designated wilderness area (Mesa Verde National Park Wilderness; 8,105 acres) is approximately 1.5 hours to the southeast. Mesa Verde Wilderness is not open to the public due to important archaeological values. Two to 3 hours to the east of Cross is Forest Service Lizard Head (41,189 acres) and Mt. Sneffels (16,210 acres) Wilderness Areas; areas of high mountain landform and ecosystem and thereby unavailable for most public use during winter and spring. Two hours to the north is the BLM Dolores River Canyon WSA which contains 29,415 acres recommended for wilderness designation. Because of its year-round accessibility and Colorado Plateau ecosystem, Cross Canyon WSA would expand and balance opportunities to attain diverse wilderness experiences.

Manageability

(The area must be capable of being effectively managed to preserve its wilderness character.)

The Cross Canyon WSA could be effectively managed to preserve its wilderness character yet complex and expensive management problems could occur in two areas: management conflicts associated with 36 pre-FLPMA oil and gas leases and management conflicts associated with peripheral, flat-land parcels (see Recommendations and Rationale section for a complete discussion). The Cross Canyon EIS included a partial wilderness alternative which would enhance the manageability of this WSA. This alternative discussed deleting the several land parcels (933 total acres) by conforming the WSA boundary to the more easily and topographically identifiable canyon rim. This alternative also included the addition of two parcels totaling 617 acres from outside the WSA which would take advantage of natural topographic features to improve the identifiability and therefore the manageability of the south WSA boundary.

There are no other major manageability problems for resource conflicts which would result from wilderness designation. The entire WSA is BLM land; no inholdings. There are no patented mining claims within the WSA but there are 9 unpatented post-FLPMA mining claims, most likely for uranium. Since the GEM report for Cross Canyon shows only moderate favorability of uranium occurrence and no known deposits of uranium exist, and since these claims and all future claims are subject to FLPMA generated guidelines, site disturbance associated with access and development of these claims is unlikely (see the Energy and Mineral Resource Values section below). For the most part, the entire WSA is one grazing allotment with minimal acreage in three other allotments totaling 1,000 animal unit months (AUMs); however, no range improvement projects have been proposed within the WSA.

Energy and Mineral Resource Values

Cross Canyon energy and mineral resources were evaluated in GEM (Geological, Energy, and Minerals); Resource Assessment for Region 4, Colorado Plateau - submitted to BLM by Mountain States Mineral Enterprises Inc. in May 1983, and the Mineral Summaries prepared for BLM by the U.S. Geological Survey and Bureau of Mines in February, 1990. Extensive seismic testing has been done in and around the WSA; all in a non-impairing manner mostly by helicopter or on foot.

Hydrocarbons (oil, gas, carbon dioxide, helium): There are no known deposits or mineralization present in the WSA (GEM page 111-5). There is high potential that these resources could be found in the WSA, but accessibility and economic potential are unknown (GEM page 111-7). There are also no known deposits of coal in Cross Canyon. There is a low potential that coal is present with accessibility and economic potential unknown.

Energy and related minerals (uranium and vanadium): No known deposits in the WSA with a moderate potential for existence; therefore, accessibility and economic potential are unknown.

Precious and base metals (copper, gold, silver, lead, zinc): No known deposits and no potential that deposits exist.

Clays and cut sandstone: No known deposits, but a high probability that deposits exist. However, accessibility and economic potential are listed at low to moderate.

Overall, Cross Canyon WSA is considered to have limited potential for mineral discovery and development, which is reflected in the absence of actual development.

Impacts on Resources

The comparative impacts table (Table 3) summarizes the effects on pertinent resources for the three alternatives considered for this WSA.

Local Social and Economic Considerations

Designation or nondesignation of this WSA as wilderness would have negligible impacts on local economic conditions. Social factors were not considered a significant issue in the study.

Summary of WSA Specific Public Comments

Public involvement has occurred throughout the wilderness review process. Certain comments received during the inventory process and early stages of the Draft EIS were used to develop significant study issues and various alternatives for the ultimate management of those lands with wilderness values.

During formal public review of the Draft EIS, a total of 102 comments were received which specifically addressed this WSA--59 were written and 43 were oral statements received at public hearings. In general, 97 commenters supported wilderness designation and 5 favored releasing the area for other uses (no wilderness). Specific comments by those favoring wilderness designation centered on the preservation of archaeological values (prehistoric and historic). Protection of ecological diversity and geologic beauty were also major concerns. Wildlife and saving a vanishing resource of scientific and educational value for future generations were both mentioned in several comments.

Those opposing wilderness designation were concerned that wilderness would preclude mineral development and grazing or that the area does not have wilderness characteristics.

One government agency comment specifically addressed this WSA: State of Colorado Department of Natural Resources supported wilderness designation of Cross Canyon WSA.

TABLE 3
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Wilderness Values	Wilderness values would remain largely unchanged on 12,057 acres under this alternative. However, surface disturbance (51 acres) and impacts from sights and sounds (480 acres) from seismic exploration and wildcat well development would diminish the wilderness values on these 531 acres.	Wilderness designation would provide long-term protection for wilderness values on 12,588 acres. Natural and supplemental values would be maintained by the restrictions to motorized recreational use and mineral development. There would be short-term impacts on 111 acres associated with seismic work and test drilling. However, these disturbances would be reclaimed and substantially unnoticeable after 2 years. Opportunities for solitude and primitive, unconfined recreation would be maintained because the anticipated increase in visitor use associated with wilderness designation is incidental.	Under this alternative, the wilderness values in the 12,272 acres designated as suitable for wilderness would be protected. There would be short-term impacts on 243 acres associated with seismic work and test well drilling. However, these disturbances would be reclaimed and substantially unnoticeable after 2 years. Opportunities for primitive, unconfined recreation would be preserved. The wilderness values in the remaining 933 acres designated as nonsuitable would be protected by the ORV closure and 683 acres of the remaining 933 acres designated as nonsuitable would be protected by the NSO stipulation; this area is expected to remain largely unchanged over the long-term.

TABLE 3 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Cultural Resources	Under this alternative, the cultural resources in the Colorado portion of the WSA would be protected by provisions in the ACEC plan which provide for protection of all sites and stabilization or recovery of information from 75 sites. In addition, cultural resources in this area will be protected through increased knowledge and management presence, as well as by management restrictions on motorized vehicle use and by an NSO stipulation on 9,580 acres. Cultural resources on the remaining 1,008 acres in Utah are expected to remain largely unchanged.	Under this alternative, the cultural resources in the WSA would be protected by wilderness management and by the ACEC plan which provides for protection for all sites and stabilization, or recovery of information from 75 sites. These protective measures would be further supported by the WSA-wide exclusion of motorized recreational use and by the mineral withdrawal. As such, this alternative would provide comprehensive protection for the cultural resources in the entire 12,588 acre WSA.	Under this alternative, the cultural resources in the suitable portion of the WSA (12,272 acres) would be protected by the closure to motorized recreational use and by the mineral withdrawal. As such, this alternative would provide comprehensive protection for the cultural resources in this portion of the WSA. The cultural resources in 250 acres of the portion designated as nonsuitable would also be protected by both the ACEC plan and the closure to motorized recreational use. Although the cultural resources in 683 acres of the nonsuitable portion do not have the NSO stipulations, they would continue to be protected by both the ACEC plan and the ORV closure.
Impacts on Mineral Exploration and Production	Two projected successful wells in the WSA would produce about 400 bbls of oil and 800 mcf of gas per day during the next 20 years. These wells represent 5 percent of the 40 new wells projected to be drilled and producible within Colorado's Paradox Basin in the next 20 years. It is projected that 85 percent of the recoverable reserves would be produced over time, mostly from more favorable well sites outside the WSA through directional drilling.	Although some exploration will occur, production of energy or minerals probably will not occur from within the WSA. However, it is projected that 40 percent of the recoverable reserves would be produced over time by directional drilling from outside the WSA.	Under the Partial Wilderness Alternative, even though exploration will occur, production of energy or minerals probably will not occur from within the WSA. However, it is projected that 50 percent of the recoverable reserves would be produced over time by directional drilling the pre-FLPMA leases from outside the WSA.

TABLE 3 (Continued)
COMPARATIVE SUMMARY OF THE IMPACTS BY ALTERNATIVE

Impact Topics	Recommendation No Action/No Wilderness	All Wilderness Alternative	Partial Wilderness Alternative
Impacts on Recreational Opportunities and Use	Recreational use would increase to 880 user days per year under this alternative. Excellent opportunities for most back country recreational activities would continue to exist for most of the WSA.	Under this alternative, recreational use would increase slightly over a 3 to 5 year period. However, this increase would be so incidental that it would not affect the character of recreation use in this area. Over the long-term, excellent opportunities will be preserved for non-motorized, back country recreational activities by eliminating motorized recreational use and mineral development.	Under this alternative, recreational use in the 12,272 acres determined suitable for wilderness would increase slightly over a 3 to 5 year period. However, this increase would be so incidental that it would not affect the character of recreation use in this area. Over the long-term, excellent opportunities will be preserved for non-motorized recreational use through the exclusion of motorized use and mineral development. the character of recreational use in the 933 acre area designated as nonsuitable would not change. In this area, excellent opportunities would still exist for non-motorized recreational use because of the existing closure to motorized use and restrictions on mineral development on 250 acres.

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